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AN
INSTITVTION
TRIGONOMETRICALL.

Tho: Fludd

VVherin demonſtratively and
perſpicuouſly is exhibited the *do-*
ctrine of the Dimenſion of Plane
and *Sphericall Triangles* after the
moſt exact and compendious way
by Tables both of
SINES,
TANGENTS,
SECANTS;
and
LOGARITHMES.

By HENRY GELLIBRAND
Profeſſor of Aſtronomy in
Greſham Colledge.

LONDON,
Printed by *William Iones* dwelling in
Red-croſſe-ſtreete, 1635.

THE FIRST BOOKE

Of the INSTITVTION Trigonometricall.

Of the Dimenſion of Plane Triangles.

Chap. I.

A Triangle is a figure comprehended of three ſides, and is either Plane or Sphericall.

A Plane Triangle is that which is deſcribed on a Plane ſurface, whoſe three ſides are right lines. And it is either Rectangular or Obliquangular.

A Plane Rectangular Triangle is that which hath one right angle; an Obliquangular which hath none. Eucl: 27. D. 1.

If a Rectangular Triangle be equicurall, either angle at the Baſe is the halfe of a right angle. Reg. 3.8. Therefore

If one angle be equall to the reſt, it is a right angle, and the contrary. Alſo

If a right line drawne from the vertex or top of a Triangle,

and biſecting the Baſe be equall to the biſegment, the ver
call angle is a right angle.

An Obliquangular Triangle is either Obtuſangular
Acutangular.

An Obtuſangular Triangle is that which hath one obtu
angle. Eucl; 28. D. 1.

An Acutangular, which hath all acute angles. Eucl. 29. D.

If an angle of a Triangle be greater then the reſt, It is o
tuſe; if leſſe, acute. And

If a right line drawne from the topp of a Triangle, a
biſecting the Baſe, be leſſe then the biſegment, the vertic
angle is obtuſe, if greater, it is acute.

The three angles of every Triangle are equall to two rig
Eucl. 32. 1. Therefore.

Any two angles of a Triangle are leſſe then two right. A

Any ſide being continued, the exterior angle is equall
the two interior oppoſite ones.

If a Triangle be equicrurall, it is equiangular at the Ba
and if it be equilateral, it is alſo equiangular; Eucl. 5 and 6 p

Any two ſides of a Triangle are greater then the thir
Eucl. 20. p. 1.

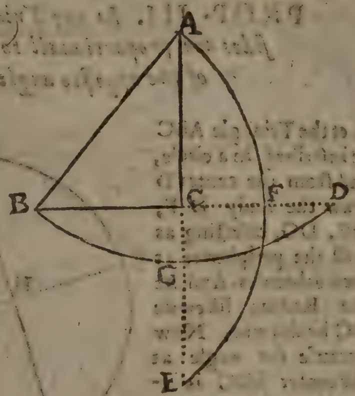
In every Triangle the greater ſide ſubtendeth the grea
angle: And the greater angle is ſubtented by the greater ſid
Eucl. 19. 18. p. 1.

Complements of angles are ſo called with reference eith
to a Quadrant or Semicircle.

CHAP. II.

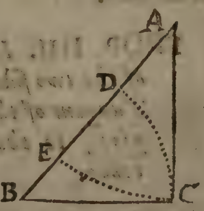
PROP. I. *In a Rectangular Triangle. If t
ſide ſubtending the right angle be made the Ra
dius of a circle, the legges ſhall be the ſines
the oppoſite angles.*

I



In the Rectangular Triangle ABC with he diſtance AB, and rom the centers A and B let the arcs BGD and AFE bee deſcribed; then ſhall he leggs AC and BC bee the ſines of he angles at A and B: for they are the halfes of the ſub-enſes ACE and BCD.

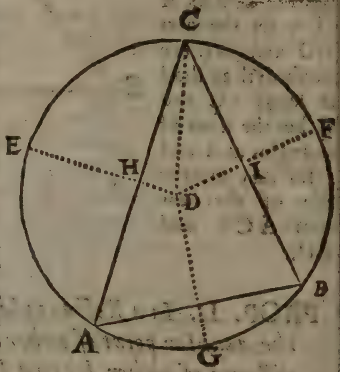
PROP. II. *In a Rectangular Triangle. If from the angular point of either angle, and with the diſtance of either legge a Periphery be deſcribed, either legge ſhall be the Radius, the other legge a Tangent, and the Hypotenuſa (or ſide ſubtending the right angle) a Secant.*



In the Rectangular Triangle ACB, from the angular point B nd with the diſtance of the legge BC let the periphery DC be deſcri-ed; then ſhall BC bee the Radius, AC a Tangent, and BA a Secant of he angle ABC.

In like manner if at the diſtance AC the periphery EC be deſcribed rom the angular point A, then ſhall AC be the Radius, BC he Tangent, and AB the Secant of the angle BAC.

PROP. III. *In any Triangle. The ſides are proportionall to the ſines of the oppoſite angles.*

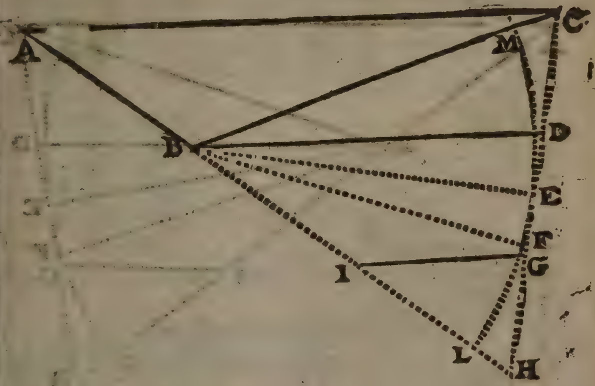


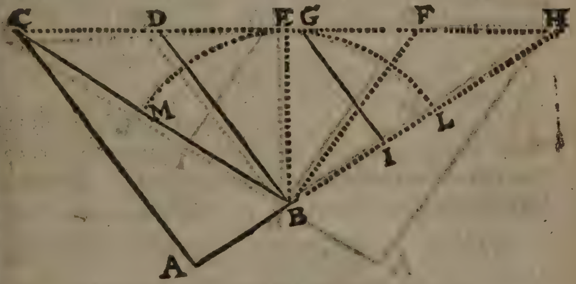
Let the Triangle ABC be inſcribed in a circle, and from the center D draw the Rady D F, DE, DG, biſecting as well the peripheries as their ſubtenſes. And let the Radius likewiſe DC be drawne; Now becauſe the angle at the center EDC is equall to the angle in the periphery A B C, and C D F equall to CAB by the 20 prop. of the 3 Eucl. therefore ſhall the halfes of the ſides be as ſine and what proportion the ſide CA hath to the ſide CB, th ſame ſhall the ſine CH haue to the ſine CI: for what proportion the whole hath to the whole, the ſame ſhall the halfe hau to the halfe.

PROP. IIII. *In any Triangle. As the ſumm of the two ſides, is to their difference, ſo is th Tangent of the halfe ſumme of the oppoſite angles, to the Tangent of halfe their difference:*

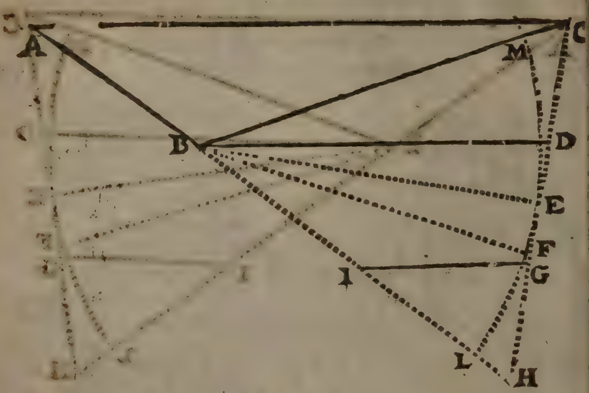
In the Obliquangular Triangle A B C let the ſid be AB, CB, and the angle A BC comprehended by thei

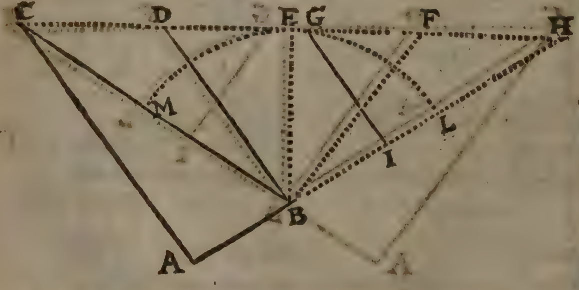
obtu





obtuſangular in the ſuperior diagramme, but acutangular in the inferior. The ſide AB continued to H, let BH be equall to BC, and connect the points C and H with the right line CH, and let BI be equall to the ſide AB. Alſo from the points B and I draw the right lines BD, and IG parallel to the ſide AC: Then ſhall the exterior angle CBH bee





equall to the two interior and oppoſite by the 32. 1 Eucl. for the angle C B D is equall to the angle B C A, and the angle DBH to the angle C A *B*. Moreover from the point *B* let fall the perpendicular *B* E, which ſhall biſect C H. And with the Radius *B* E deſcribe the periphery M E L. Therefore ſhall CE be the Tangent of halfe the ſumme of the oppoſite angles, and DE (which is equall to FE) the Tangent of halfe the difference. Now becauſe AC, BD, IG are parallel, therefore ſhall CD, DG, FH be equall; and ſo likewiſe DF and GH. I ſay therefore.

Proportion.
As AH.
To IH.
So CH.
To GH = DF

Or by equality of proportion.

Proportion.
As AH. the ſumme of the two ſides,
To IH. the difference of the two ſides;
So CE. the Tangent of $\frac{1}{2}$ the oppoſite angles,
To DE. the Tangent of $\frac{1}{2}$ the differ: of the angles.

Otherwiſe.

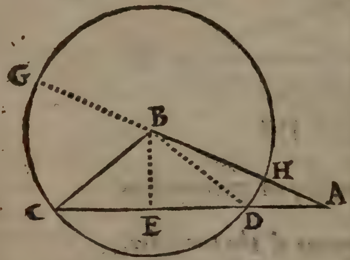
As the ſumme of two ſides,
To the greater ſide doubled;
So the Tangent of $\frac{1}{2}$ the ſumme of the oppoſite angles,
To the ſumme of the Tangents of the $\frac{1}{2}$ ſumme and the halfe difference of the angles.

Otherwiſe.

As the ſumme of the ſides,
To the leſſe ſide doubled;
So the Tangent of $\frac{1}{2}$ the ſum of the oppoſite angles.
To the difference of the Tangents of the $\frac{1}{2}$ ſumme and the $\frac{1}{2}$ difference of the angles.

PROP.

PROP. V. *In any plane Triangle. As the Baſe, to the ſum of the other ſides: So the difference of the other ſides, to the difference of the ſegments of the Baſe.*



In the Obliquangular Triangle ABC, let the Baſe be the greater ſide CA, the ſumme of the ſides GA, the difference of the ſides HA, the difference of the ſegments of the Baſe AD. Now becauſe the oblong of AC, AD, is equall to the oblong of AG, AH, by the 36. prop. of the 1 Eucl: therefore ſhall their ſides be reciprocally proportionall. I ſay therefore.

Proportionals

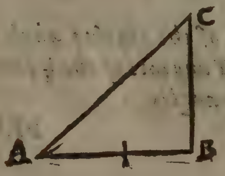
As AC Baſe,
To AG (ſumme of the ſides;
So AH difference of the ſides,
To AD difference of the ſegments of the Baſe.

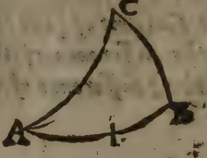
Hence the ſegments A E or CE.

CHAP. III.

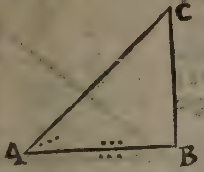
Of the Dimenſion of Rectangular Triangles.

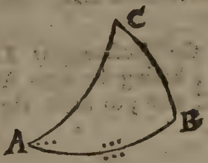
IN the ſolutions of all Triangles we expreſſe the given termes thus.





The inquired thus.





Moreover, in Rectangular Triangles Plane and Sphericall the ſide ſubtending the right angle we call the Hypotenuſa, as the ſide AC ſubtending the right angle ABC. And thoſe which comprehend the right angle, the leggs, as the ſides AB, CB.

Laſtly in the dimenſion of Triangles by the rule of proportiõ wherein there are foure termes, three givẽ and a fourth inquired; if the termes of the proportions be Sines, Tangents, Secants, or ſides, the factus of the ſecond and third divided by the firſt, the quotient giues the fourth.

But if the termes be the Logarithmes of the Sines, Tangents, Secants, or ſides, if from the ſumme of the Logarithmes of the ſecond and third wee ſubduct the Logarithme of the firſt, the difference ſhall be the Logarithme of the fourth inquired.

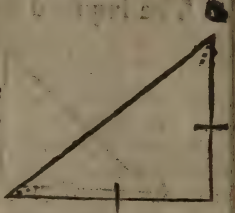
PROBL. I. The Leggs given, to find either ANGLE.

Prop. termes.

As the one legg,
To the other legg;
So the Radius,
To the Tangent of the angle oppoſite to that other legg. chap. 2. prop. 2.

Illu-

Illuſtration Arithmeticall.



In the Rectangular Triangle ABC, having the leggs AB 1124 and BC 606; to finde the angle BAC.

	Sides and Tan: A	Logarith: B
As the legg AB	1124	3.0507663
To the legg BC	606	2.7824726
So the Radius AB 90d. 0'.	100000	10.0000000
To the Tang. of BAC 28d. 20'.	53915	9.7317063

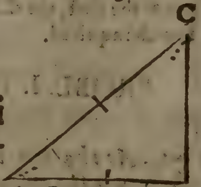
The compl. thereof 61d. 40'. is for ACB.

PROBL. II. The Hypotenuſa and a Legg given; to find either ANGLE.

Prop: termes.

As the Hypotenuſa,
To the whole ſine;
So the legg given,
To the ſine of its oppoſite angle. ch. 2. pr. 1.

Illuſtration Arithmeticall.



In the Rectangular Triangle ABC, having the Hypotenuſa AC 1277, and the legg AB 1124; to finde the Angle ACB.

	Sides and ſines. A	Logarith. B
As the Hypot. AC	1277	3.1061909
To the whole ſine.	100000	10.0000000
So the legg AB	1124	3.0507663
To the ſine of ACB 61d. 40'.	88019	9.9445754

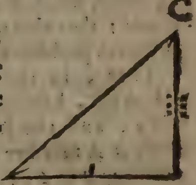
The compl: thereof 28d. 20'. is for BAC.

PROBL.

PROB. III. The Angles and one Legg given; to finde the other LEGG.

Prop. Termes

As the Radius, *(with the given legg)*
To the Tangent of the angle conterminate
So the legg given,
*To the leg inquired.*ch: 2.pr.2



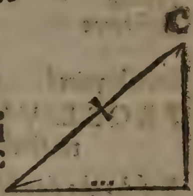
In the Rectangular Triangle *A B* C having the legg *A* B 1124, and the angles *A*C*B* 61*d*. 40′. and *B*A*C* 28*d*. 20′, to finde the legg BC.

	Tangents and ſides.	Logarith.
As the Radius,	100000	10.0000000
To the Tang of *BA*C 28*d*. 20′.	53920	9.7317460
So the legg *AB*	1124	3.0507663
To the legg *B*C	606	2.7825123

PROBL. IIII. The Hypotenuſa and Angles given; to finde either LEGG.

Proport. termes.

As the whole Sine,
To the Hypotenuſa;
So the ſine of the angle oppoſite to the legg inquired,
*To the leg inquired.*ch. 2.pr. 1.



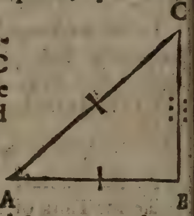
In the Rectangular Triangle *A B*C, having the Hypotenuſa *A*C 1277, and the angles *A*C B 61*d*. 40′. and B *A*C 28*d*. 20′, to finde the legg *A B*.

	Sines and ſides.	Logarith.
As the whole ſine,	100000	10. 0000000
To the Hypot: *A*C	1277	3. 1061909
So the ſine of BCA 61*d*. 40′.	88020 ~~47460~~	9. 9445820
To the legg *AB*.	1124	3. 0507729

PROBL. V. The Hypotenuſa and a Legg given, to finde the other LEGG.

The ſolution of this Probleme with the helpe of the Triangular Canon doth require two operations: the firſt is for an angle, which may be found by the ſecond precedent probleme: the other will be for the legg inquired, by the third or fourth probleme.

Thus, in the Rectangular Triangle ABC, having the Hypotenuſa AC 1277, and the legge AB 1124, the angle at A may bee found 28*d.* 20′. And the legge BC 606.



Otherwiſe by the Logarithmes of abſolute numbers.

To the Logarithme of the Summe of the Hypotenuſa and legge add the Logarithme of their difference; the halfe ſumme is the Logarithme of the legge inquired.

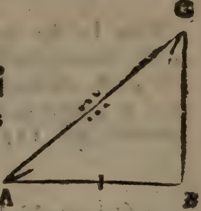
The Illuſtration Arithmeticall.

Hypotenuſa	AC	1277		
Legg	AB	1124	Logar.	
Summe		2401	3. 3803922	
Difference		153	2. 1846914	
			5. 5650836	ſumme
Legg inquired		606	2. 7825418	$\frac{1}{2}$ ſumme

PROBL. VI. The Angles and a Legg given, to find the HYPOTENVSA.

Propor.tum.
As the ſine of the angle oppoſite to the given leg,
To the given legg;
So the whole ſine,
To the Hypotenuſa *inquired.* ch. 2. pr. 8.

In the Rectangular Triangle ABC, having the angles ACB 61*d.* 40′. and BAC 28 *d.* 20′. with the legg AB 1124; to find the Hypotenuſa AC.



	Sines and ſides.	Logar.
As the ſine of ACB 61: 40′	88020	9. 9445820
To the legg AB	1124	3. 0507663
So the whole ſine of 90: 0	100000	10. 0000000
To the Hypot. AC	1277	3. 1061843

Otherwiſe.

As the Radius,
To the ſecant of the angle conterminate with the (given legg;
So the legg given,
To the Hypotenuſa inquired, ch. 2. pr. 2.

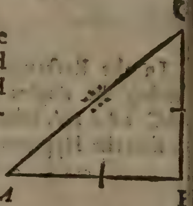
The Logarithmes of the Secants though they be not expreſly given in the Canon, yet are they included in the Logarithmes of the ſines, and may eaſily from them be obtained: For the Radius being a meane proportionall betweene any ſine and the ſecant complement, if the Logarithme of a ſine be deducted from the doubled Logarithme of the Radius, the relique ſhall be the Logarithme of the Secant complement.

PROBL. VII. The leggs given, to finde the HYPOTENVSA.

This Probleme if it be reſolved by the Canon, will require a double operation: the firſt for an angle by the helpe of the firſt Probleme: the ſecond for the Hypotenuſa by the laſt precedent.

Thus

Thus in the Rectangular Triangle *A*BC, having the leggs *AB* 1124; and BC 606, the angle at *A* may be found 28*d.* 20′, and at C 61*d.* 40′, and the Hypotenuſa *A*C 1277.



Otherwiſe by the Logarithmes of the abſolute numbers.

From the doubled *Logarithme* of the greater legg, ſubduct the *Logarithme* of the leſſe, and to the abſolute number anſwering to the difference of the *Logarithmes* adde the leſſe; The halfe ſumme of the *Logarithmes* of the ſumme and leſſe legg, is the *Logarithme* of the Hypotenuſa enquired.

The Illuſtration Arithmeticall.

The doubled *Log.* of	1124	is	6. 1015326
The *Log.* of 606 is			2. 7824726
The *Logarithme* of	2085		3. 3190600
The leſſe legg	606.	Its *Logarithme*	2. 7824726
The ſumme is	2691.	Its *Logarithme*	3. 4299137
		The ſumme	6. 2123863
The ½ ſum is the *Log.* of the Hypot.	1277		3. 1061931

CHAP. IV.

Of the Dimenſion of Plane Obliquangular Triangles.

PROPL. I. Two ſides and an Angle oppoſite to one of them given; to finde the ANGLE oppoſite to the other ſide.

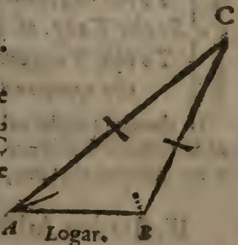
As

Prop. termes.

As the one ſide,
To the ſine of his oppoſite angle;
So the other ſide,
To the ſine of his oppoſite angle. ch.2. pr.3.

Illuſtration Arithmeticall.

In the Obliquangular Triangle *A*BC, having the ſides *A*C 1277; and B C 865, with the angle B*A*C 37*d.* 27'. to finde the obtuſe angle *A*BC.



	Sides and ſines.	Logar.
*A*s the ſide BC	865	2. 9370161
To the ſine of *A* 37. 27'.	60807	9. 7839527
So the ſide *A* C	1277	3. 1061909
To the ſine of *B* 116. 9'.	89769	9. 9531275

Here note. That if the given angle be obtuſe, the ſide oppoſite thereto ſhall be greater then either of the reſt, and the ther two angles ſhall be acute.

*B*ut if the given angle be acute and the ſides given, it will e doubtfull whether the angle oppoſite to the greater ſide be btuſe, right, or acute; and yet the fourth proportionall ſhall e alwayes the ſame, namely the ſine of the acute angle, or its omplement to two right angles.

Therefore that we may be certaine of what quality the an-le is, which is oppoſite to the greater ſide, take the ſumme id difference of the greateſt ſide and middle (or leaſt) and eir Logarithmes. If the halfe of them be equall to the Lorithme of the third ſide, the angle oppoſite to the greateſt de is a right angle. But if the Logarithme of the third ſide greater then the halfe, it is acute, if leſſe, it is obtuſe.

B PROBL.

PROBL. II. Two ſides with the Angle com prehended by them given; to finde either o the other ANGLES.

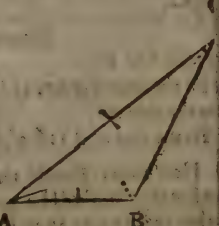
Proport. termes.

As the ſumme of the ſides given,
To the difference of the ſides given;
So the Tang. of ½ the ſum of the oppoſite angles
To the Tangent of ½ the difference of
the oppoſite angles. ch. 2. pr. 4.

If therefore to the halfe ſumme of the oppoſite angles w adde the halfe difference, the ſumme is the greater angle, an if we ſubtract the ſame, the difference is the third angle.

Illuſtration Arithmeticall:

In the Obliquangular Triangle ABC, having the ſides AC 1277, AB 632, (whoſe ſumme is 1909 and differ. 645) with the Angle BAC 37*d.* 26′. to finde the angle ABC, or ACB.



As the ſumme	1909	3. 280805
To the difference ½ ∠: at B & C	645	2. 809559
So the Tangent of ½ 71. 17′.	295155	10. 470049
To the Tang. of ^ 44. 55′.	99724	9. 998803

Therefore if to the halfe of the oppoſite angles 71*d.* 17′. b added 44*d.* 55′, the ſum is 116*d.* 12′. for the obtuſe angle AB If it be ſubtracted, the difference is 26*d.* 22′, for the acu angle ACB.

PROBL. III. The three ſides given to find an ANGLE.

This Probleme ~~likewiſe~~ calls for two operations; for the Tr ang angle being reduced vnto two Rectangulars by the perpendicular let fall upon the greater ſide; the firſt worke will be for either ſegment of the Baſe; the ſecond for the angle inquired.

For the I. Operation. ch. 2. pr. 5.

Prop. term.

As the *Baſe* or greater ſide,
To the ſum of the other ſides;
So the difference of the other ſides,
To the difference of the ſegments of the *Baſe*.

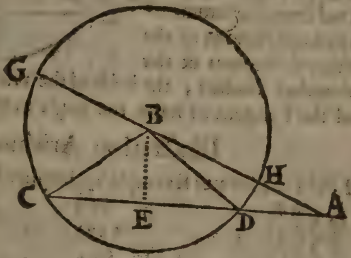
Hence ariſeth either ſegment.

For the II. Operation. ch. 3: probl. 2.

Prop. term.

As the Hypot. conterminate with the ſegment given,
To the whole ſine;
To the legg or ſegment given,
To the ſine of its oppoſite angle.

Illuſtration Arith.



In the Obliquangu-
r Triangle *A*BC ha-
ing the ſides AC
277, *AB* 869, and
C 632; to finde the
igle ACB.

	Sides.	Logarithmes.
s AC.	1277	3.1061909
To AB + BC	1497	3.1752218
AB — BC	233	2.3673559
o AD	273	2.4363868

nce *CD* 1004, & the halfe thereof *CE* or DE 502, & *AE* 775.

Secondly.

the Hypot. C*B*.	632.	2.8007171
To the whole ſine	100000	10,0000000
the legg C*B*	502	2.7007037
o the ſine of C*BE* 52.34'.	79430	9.8999866

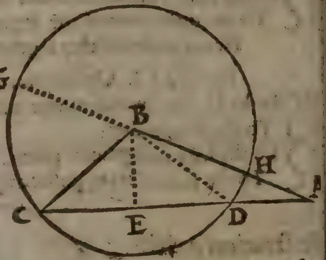
The compl: thereof. [illegible] is [illegible] ECB

37 · 26'

The like muſt be done for the other angle in the other Re-ctangular Triangle.

Otherwiſe by Logarithmes.

This Probleme may yet more readily be reſolved by thi following precept, the ground whereof is drawne from th 18 chapter of Maſter Briggs his Arithmetica Logarithmica.



From halfe the ſum of the ſides ſubduct each particular; and let the ſum of the Logarithmes of the halfe ſumme and difference of the ſide ſubtending the inquired angle be ſubtracted from the ſumme of the Logariehmes of the other differences & the doubled Radius, the halfe of the reſique is the Logarithn of the Tangent of halfe the angle inquired.

Illuſtration Arithmeticall.

Let in the former Exemple be inquired the ſame angle AC

			Logarithmes	
Sides	AB	865		
	AC	1277		
	BC	632		
The ſumme		2774		
The ½ ſumme		1387	3.1420765	
The difference of AB		522	2 7176705	
		The ſumme	5.8597470	
The diff. of AC		110		2.0413927
The diff. of BC		755		2.8779470
The doubled Radius				20.0000000
	The ſumme			24.9193397
	The ſum to be ſubtracted			5.8597470
	The difference			19.0595927
	The ½ difference			9.5297963½

the Logarithme of the Tangent of 18*d*. 43'. the double is 37*d*. 26'. the angle AC*B* inquired.

PROBL. IV. The Angles and a Side given; to finde either of the other SIDES.

Propor. term.

As the ſine of the angle oppoſite to the given ſide;
To the given ſide;
So the ſine of the angle oppoſite to the inquired ſide,
To the inquired ſide.

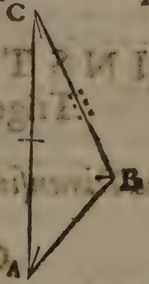


Illuſtration Arithmeticall.

In the Obliquangular Triangle ABC, having the angles *B*AC 37*d*. 27'. AC*B* 26*d*. 24'. A*B*C 116*d*. 9'. and the ſide AC 1277; to finde the ide *B*C.

		Sines and ſides.	Logar.
As the ſine of *B*	116. 9'.	89764	9.9531038
To the ſide AC		1277	3.1061909
o the ſine of A	37. 27'.	60807	9.7839527
To the ſide *B*C		865	2.9370398

And ſo you may finde alſo the ſide A*B* 632.

PROBL. V. Two Sides with the Angle comprehended by them given; to find the third SIDE.

This Probleme ſtands in need of two operations. The firſt will be for an angle by the ſecond Probleme of this chapter. The ſecond for a ſide by the laſt precedent Probleme.

THE SECOND BOOKE

Of the INSTITVTION Trigonometricall.

Of the Dimenſion of Sphericall Triangles.

Chap. I.

HAving done with Plane Triangles, we come next to the dimenſion of the Sphericall.

1. *A* Sphericall Triangle is that which is deſcribed on the ſurface of the ſphere.

2. The ſides of the Sphericall Triangle are the arcs of the three great Circles of the ſphere, mutually interſecting each other.

3. The meaſures of Sphericall angles are the arcs of great circles deſcribed from the angular points at their Poles, and ſubtending their angles.

4. Thoſe are ſaid to bee great circles which biſect the ſphere.

5. *Th*oſe circles which cut each other at right angles, the one of them paſſeth through the Poles of the other, and contrary.

6. The

6. The diſtance of the Poles of two great circles is equall to the angle comprehended by them. and contrary. Therefore

7. The three angles of any ſphericall Triangle being given, there are likewiſe three ſides of another Triangle given, whoſe angles are equall to the ſides of the former Triangle.

8. The ſumme of the ſides of a ſphericall Triangle are leſſe then two ſemicircles. Reg.39.3.

9. The ſumme of the three angles of a ſphericall Triangle are greater then two right angles, and leſſe then ſix. Reg.49.3.

10. Two angles of any ſphericall Triangle are greater then the difference betweene the third angle and a ſemicircle. [illegible] Therefore [illegible]

11. Any ſide being continued, the exterior angle is leſſe then the two interior oppoſite ones.

12. In any ſphericall Triangle, the difference of the ſumme of two angles and a whole circle is greater then the difference of the third angle and a ſemicircle.

13. A ſphericall Triangle is either Rectangular or Obliquangular.

14. A Rectangular ſphericall Triangle is that which hath one right angle at the leaſt.

15. The leggs of a Rectangular ſphericall Triangle are of the ſame affection with their oppoſite angles. Reg.3.4.

16. In a Rectangular ſphericall Triangle, if either legg bee a Quadrant, the Hypotenuſa ſhall be alſo a Quadrant: But if both ſhall be of the ſame affection, the Hypotenuſa ſhall bee leſſe then a Quadrant; If of different affection, then greater, and the contrary. Reg.4.5.4.

17. In a Rectangular ſphericall Triangle, if either of the angles at the Hypotenuſa bee a right angle, the Hypotenuſa ſhall bee a Quadrant: But if both ſhall bee of the ſame affection, it ſhall be leſſe, If of different, then greater, and the contrary. Reg.6.7.4.

18. In a Rectangular ſphericall Triangle, either of the oblique angles is greater then the complement of the other, but leſſe then the difference of the ſame complement to a ſemicircle

19. An Obliquangular ſphericall Triangle is either Acutangular, or Obtuſangular.

20. An Acutangular hath all its angles acute.

21. An Obtuſangular hath all either obtuſe, or mixt, viz. acute and obtuſe.

22. In an Acutangular Triangle each ſide is leſſe then a Quadrant. Reg. 9. 4.

23. In an Obliquangular Triangle, if two acute angles be equall, the ſides oppoſite to them ſhall be leſſe then Quadrants; If obtuſe, greater. Reg. 10. 11. 4.

24. In an Obliquangular Triangle, if two acute angles be unequall, the ſide oppoſite to the leſſe of them ſhall be leſſe then a Quadrant. But if obtuſe, the ſide oppoſite to the greater, ſhall be greater. Reg. 12. 13. 4.

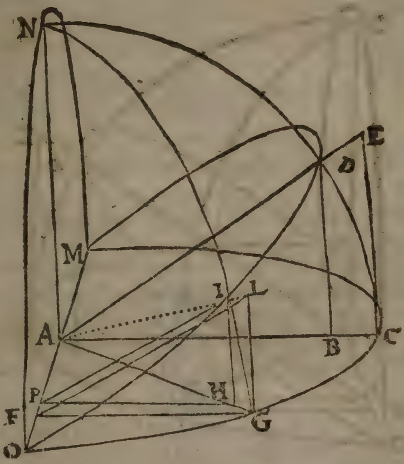
25. In every Obliquangular Triangle, if the angles at the Baſe be of the ſame affection, the perpendicular drawne from the verticall angle ſhall fall within; If of different, without. Reg. 8. 4.

CHAP. II.

AXIOM. I.

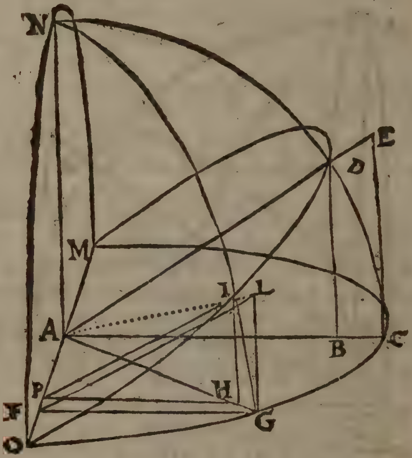
In Rectangular Sphericall Triangles having the ſame acute angle at the Baſe;

The ſines of the Hypotenuſes are proportionall to the ſines of their Perpendiculares, and the contrary.



Let MCON be $\frac{1}{4}$ of the Sphere; MCO the $\frac{1}{2}$ of the Equinoctiall plane, whoſe Pole is N. OIDM the $\frac{1}{2}$ of the Ecliptique plane. MNO halfe the plane of the Equinoctiall Colure. NIG a Quadrant of a Meridian circle, which with the Colures cutteth the Equator at right angles, but the Ecliptique at oblique. In this Quadrant of the Sphere there are found two right angled Sphericall *Triangles*, DOC and IOG, the Hypotenuſes whereof are DO and IO. *The* Perpendiculars DC and IG. But the Baſes OC and OG. The acute angle at the Baſes DOC, IOG. *The* ſines of the Hypotenuſes OD and OI let be the right lines AD the whole line, and PI. *The* ſines of the Perpendiculars DC and IG let bee the right lines DB and IH. I ſay that the ſines

of



of the Hypotenuſes AD, PI. are proportionall to the ſines of the Perpendiculars DB, IH. and the contrary.

For the Triangles BAD, HPI, are like, becauſe the right lines DB, IH, are perpendiculars to the ſame Plane; and the parallel lines DA, IP, are in the ſame plane of the Ecliptique, and haue the ſame inclination. *Alſo* the angles DBA, DAB, are equall to the angles IHP, IPH Therfore the other angles ADP, PIH, are equall. Now becauſe theſe Triangles are equiangled, their homologall ſides are likewiſe proportionall. I ſay therefore.

Propor.	Sines of the Hypotenuſes	AD. PI.
	Sines of the Perpendiculars	DB. IH.
	Sines of the Hypotenuſes	PI. AD.
	Sines of the Perpendiculars.	IH, DB.

And

And the contrary.

Proport.	Sines of the Perpendiculars	D B.	I H.
	Sines of the Hypotenuſes	D A.	I P.
	Sines of the Perpendiculars	I H.	D B.
	Sines of the Hypotenuſes.	I P.	D A.

Which was to be demonſtrated.

AXIOMA. II.

In Rectangular ſphericall Triangles having the ſame acute angle at the Baſe,

The ſines of the Baſes are proportionall to the Tangents of their Perpendiculars; and the contrary.

In the Precedent ſcheme and the ſame Triangles DOC, IOG, the ſines of the Baſes OC, and OG, are AC, and FG; And the Tangents of the Perpendiculars DC, IG, are CE, and GL. I ſay that the ſines of the Baſes AC, FG, are proportionall to the Tangents of the Perpendiculars CE, GL; and the contrary. The Tangents of the Perpendiculars CE, GL, are alſo proportionall to the ſines of the Baſes AC, FG.

Proport.	Sines.	A C.	F G.
	Tangents of the Perpendiculars.	C E.	G L.
	Sines.	F G.	A C.
	Tangents of the Perpendiculars.	G L.	C E.

And the contrary.

Proport.	Tangents of the Perpendiculars	C E.	G L.
	Sines.	C A.	G F.
	Tangents of the Perpendiculars,	G L.	C E.
	Sines.	G F.	C A.

The demonſtration of this Axiome depends upon the ſame grounds with the former, which being obvious to every man, needs no further proofe.

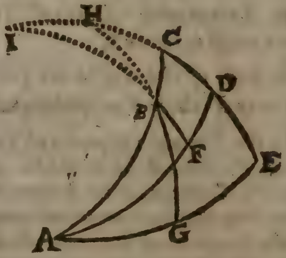
Con-

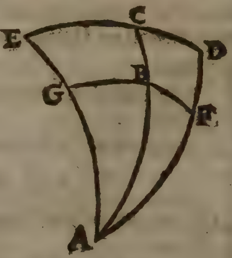
Conſectary I.

If three Arcs of great circles concurre in the ſame point, and from any point of the one Perpendiculars bee let fall on the reſt;

The ſines of the angles ſubtended by theſe Perpendiculars are proportionall to the ſines of their Perpendiculars, and the contrary.

Let there be 3 arcs of great Circles, AC, AD, AE, concurring in the point A; and from the point B and Poles I and H draw BF, BG, perpendicular to the arcs AD, AE. And let CD, CE, be the meaſures of the angles CAD, CAE. I ſay, the ſines CD, CE, are directly proportionalls to the ſines of the Perpendiculars BF, BG. And the contrary. For





Propor.
Whole ſine AC. AC.
Sine of the Hyp. AB. AB
Sine CD. CE.
Sine of the Per. BF. BG.

Therefore

Propor.
CD.
BF.
CE.
BG.

And the contrary.

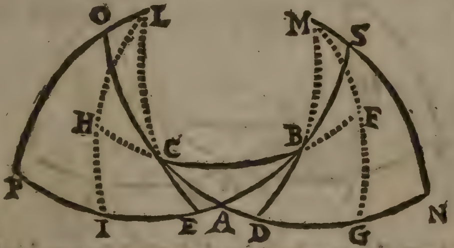
Propor.
BF.
CD.
BG.
CE.

Con

Conſectary. II.

If two Perpendiculars arcs ſubtend equall angles;

The ſines of the Perpendiculars are proportionall to the ſines of the Hypotenuſes, and the contrary.



Let the angles CAE, BAD, be equall, becauſe verticall, which let be ſubtended by the Perpendiculars CE, BD, drawne from their Poles L and M. I ſay that the ſines of the Perpendiculars CE, BD, are proportionall to the ſines of the Hypotenuſes CA, BA, and contrary: For the ſine of the angle SAN, that is of the arch SN, is equall to the ſine of the angle OAP, that is of the arc OP. Therefore

Proport.

Sine.	SN.	OP.
Whole ſine	SA.	OA.
Sine of the Perpendicular	BD.	CE.
Sine of the Hypotenuſa	BA.	CA.

Therefore

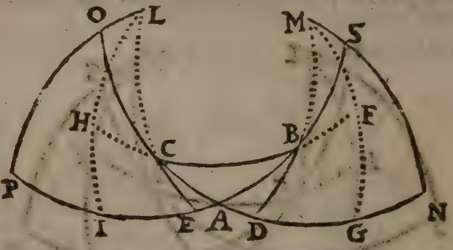
Proport.

Sine of the Perpendicular	BD.
Sine of the Hypotenuſa	BA.
Sine of the Perpendicular	CE.
Sine of the Hypotenuſa,	CA.

Con-

Conſectary III.

The ſines of Angles are proportionall to the ſines of their oppoſite ſides; and contrary.



In the Obliquangular Triangle C*A*B, I ſay that the ſines of the angles CBA, BC*A*, are proportionall to the ſines of the ſides C*A*, B*A*: For the ſines of the angles HI, and FG, are proportionall to the ſines of the Perpendiculars CE, BD, by the 1 conſectary. Alſo the ſines of the Hypotenuſes CA, BA, are proportionall to the ſame ſines of the Perpendiculars CE, BD, by the 2 conſectary. I ſay therefore.

Proport.
- Sine of HI.
- Sine of the Hypotenuſa CA.
- Sine of FG.
- Sine of the Hypotenuſa BA.

And the contrary.

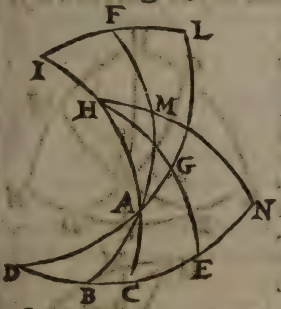
Proport.
- Sine of the Hypotenuſa C*A*.
- Sine of HI.
- Sine of the Hypotenuſa BA.
- Sine of FG.

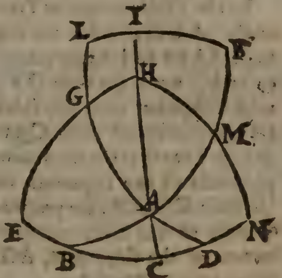
Con-

Conſectary. IIII.

In Obliquangular Triangles; If a Perpendicular be drawne from the verticall angle to the oppoſite ſide (continued if need be;)

The ſines complements of the angles at the Baſe are directly proportionall to the ſines of the verticall angles; and contrary.





In the Obliquangular Triangle ABD, from the topp thereof A let fall the Perpendicular AC; and continuing the ſides BA, DA, together with the Perpendicular AC unto Quadrants, viz. AL, AF, AI; from the topp thereof A deſcribe the periphery IFL, the meaſure of the verticall angles IAF, IAL, which are equall to the angles BAC, DAC. And from the angular points B and D let the Quadrantall arcs bee drawne HGE, HMN. I ſay that the ſines of the arcs HG, HM (the complements of the angles at the Baſe ADB, ABC) are directly proportionall to the ſines of the verticall angles LI, FI: for by the 1 conſectary.

Proport.
Sine of AH. AH.
Whole ſine of AI. AI. Therefore
Sine of HG. HM.
Sine of IL. IF.

Proport.
Sine of HG And
Sine of HM contrary.
Sine of IL
Sine of IF

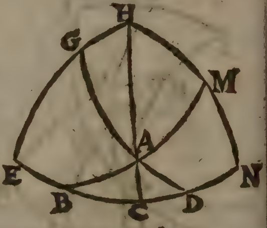
Con-

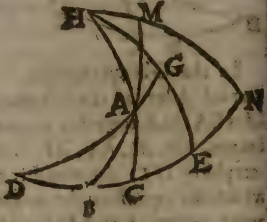
Conſectary V.

In Obliquangular Triangles; If a Perpendicular bedraw from the verticall angle to the oppoſite ſide (continued i need be;)

The ſines complements of the ſegments of the Baſ are directly proportionall to the ſines complement of the ſides of the verticall angles, and contrary.

In the Obliquangular Triangle ABD, from the top thereof A let fall the perpendicular AC upon the Baſe DB, which together with the ſides let bee continued unto Quadrants. I ſay that the ſines complements of the ſegments of the *Baſe* CN, CE, are proportionall to the ſines complements of the ſides AM, AG. For by the 1. Conſectary,





Proport.			
	Whole ſine	HC.	HC.
	Sine of	HA.	HA.
	Sine of	CN.	CE.
	Sine of	AM.	AG.

Therefore

Proport.		
	Sine of	CN.
	Sine of	AM.
	Sine of	CE.
	Sine of	AG.

And contrary.

Proport.		
	Sine of	AM.
	Sine of	CN.
	Sine of	AG.
	Sine of	CE.

Con

Conſectary VI.

In Obliquangular Triangles; If a Perpendicular be drawn from the verticall angle unto the oppoſite ſide (continued if need require;)

The ſines of the ſegments of the Baſe are reciprocally proportionall to the Tangents of the angles conterminate at the Baſe; and contrary.

In the Obliquangular Triangle of the precedent ſcheme ABD, from the top of the Triangle A let fall the perpendicular AC upon the Baſe DB, which let bee continued with the ſides unto Quadrants; *And* from the angular points at D and B deſcribe the Quadrantall arcs HE, HN; I ſay that the ſegments of the Baſe CD, BC, are reciprocally proportionall to the Tangents of the angles conterminate at the Baſe: for by the ſecond Axiom,

Propor.	Sines of	DC.	BC.
	Tangents of	CA.	CA.
	Sines of	DE.	BN.
	Tangents of	EG.	NM.

Therefore excluding the intermediate termes.

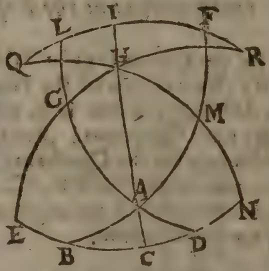
Propor.	Sine of DC.		Propor.	Sine of BC.	And
	Sine of BC.	*And* alter-		Sine of DC.	the
	Tang. of NM.	nately.		Tang. of EG.	con-
	Tang. of EG.			Tang. of NM.	trary.

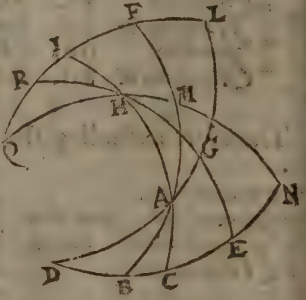
Conſectary VII.

In Obliquangular Triangles; If a Perpendicular be drawne from the verticall angle vnto the oppoſite ſide (continued if need require;)

The ſines complements of the verticall angles ar reciprocally proportionall to the Tangents of th ſides; and contrary.

In the Obliquangular Triangle *ABD*, from the concurſe of the ſides in *A* deſcribe the periphery *QR*, a part whereof LF is the meaſure of the verticall angle BAD. *And* from the angular points *B* and D draw the peripheries NMQ, EGR, (the meaſures of the angles at the Baſe) till they interſect the periphery QR. And continuing the ſides *AB*, *AD*, together with the Perpendicular *A*C unto L, F, and I. the arcs LG, FM being Tangents ſhall bee equall to the ſides AD, AB. Alſo the arcs IR, IQ ſhall be the ſines complements of the verticall angles CAD, CA*B*, whoſe meaſures are *L*I, and IF. I ſay therefore that the ſines complements of the verticall angles, IR, IQ, are reciprocally proportionall to the Tangents of the ſides FM, LG; for by the 3. *Axiom*,





Sine

Proport.

Sines of	QI.	RI.
Tangents of	IH.	IH.
Whole Sine	QF.	RL.
Tangents of	FM.	LG.

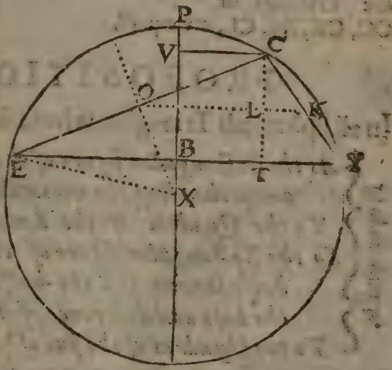
Therefore excluding the intermediate termes.

Proport.
Sines of QI.
Sines of RI.
Tang. of LG.
Tang. of FM.
And inverſedly.

Proport.
Sines of RI.
Sines of QI.
Tang. of FM.
Tang. of LG.
And the contrary.

LEMMA.

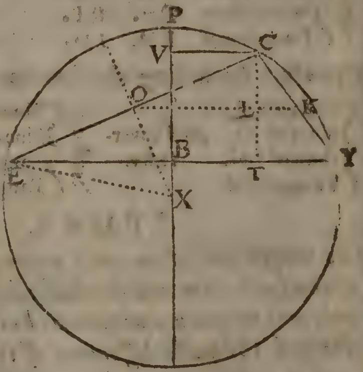
The verſed ſines of two arcs given; The right ſines of the halfe ſum and the halfe difference of thoſe arcs, are meane proportionalls betweene the whole ſine and the halfe difference of the verſed ſines.



.et the given arcs
e PE, PC, and
heir verſed ſines
'B, PV; their dif=
erence is BV, the
imme of the gi-
en arcs EPC, and
ieir difference
Y. Alſo let the
ne of the halfe
mme bee EO or
C; and the ſine
halfe the diffe-
nce CK I ſay
at EO, CK, are
eane proportio-
ils between XE, CL. For the angles EXO, CYT, CKL, are
uall, by the 20 prop. 3. Eucl: And the angles at O and L
ght. Therefore the Triangles XEO, KCL, are like, and XE,
O; KC, CL, proportionall, which was to be demonſtrated.

]

Conſectary.



If the Triangle ECY be inſcribed in a circle, & from any angle as ECY the perpendicular doe fall on the oppoſite ſide EY, the halfes of the leggs of the ſaid angle OC, CK, are meane proportionalls betweene halfe the perpendicular CL and the ſemidiameter XE; therefore the Oblongs of OC, CK; XE, CL, are equall.

PROPOSITION.

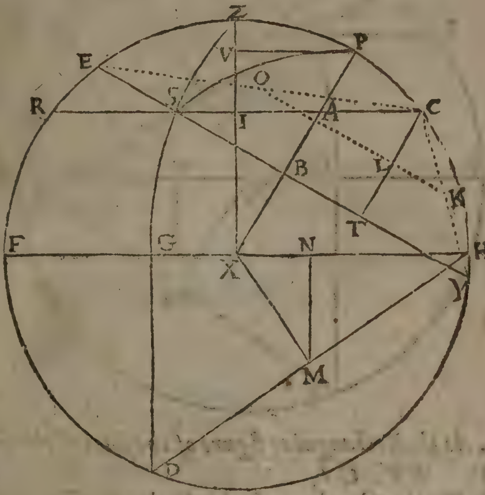
In all Sphericall Triangles, whoſe ſides are known

Proportionalls:

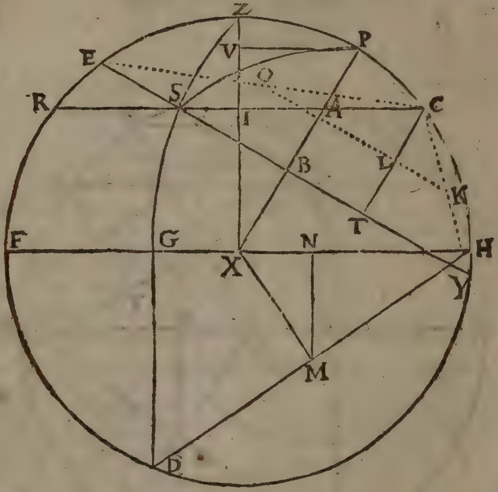
As the Rectangular figure of the ſines of the ſide
comprehending the verticall angle,
To the Quadrat of the Radius;
So the Rectangular figure of the ſines of the
halfe ſumme and the halfe difference of
the baſe and difference of the leggs,
To the Quadrat of the ſine of $\frac{1}{2}$ *the vertic. angle*

Let the ſides of the Triangle ZPS be knowne, and th verticall angle bee SZP, then ſhall ZS the one ſide be equall to ZC, and PC will be the difference of the ſides. I like manner ſhall the Baſe of the verticall angle PS be equa

ec



to PY or PE; And CE the ſumme of the Baſe and of the difference of the ſides; and CY the difference of them. *All* theſe hings are knowne. Moreover draw PV the ſine of the ſide PZ, and CI the ſine of the other ſide ZS, which let be coninued to S In like manner let CT be drawne perpendicular o the right line EY: and OK biſecting the right lines EC, SC, CT, CY. Laſtly let the arc HD be the meaſure of the verticall angle PZS, and the right line MN perpendicu= ar to the right line HG biſect the lines HD, HG. I ſay then,



Proportionalls.

As the Rectangular figure of the ſines of the ſides
PV, CI,
To the Quadrat of the Radius P X;
So the Rectangular figure of the ſines of the
$\frac{1}{2}$ ſumme and $\frac{1}{2}$ difference of the Baſe
and of the difference of the ſides OC, CK,
To the Quadrat of the ſine of halfe the verticall
angle H M.

For the Triangles XPV, XAI, SAB, SCT, are equiangular, and therefore are theſe proportionall,

Propors.
C T.
C S.
P V.
P X.

Propors.
C S.
H G.
C I.
H X.

Therefore

Therefore theſe Oblongs are proportionall.

Proport.
Oblong CT. CS.
Oblong CS. HG.
Oblong PV. CI.
Oblong PX. HX.

Alſo theſe are proportionall. Or.

Proport.
CT.
HG.
PV, CI. Oblong.
PX. Quadrate.

Proport.
CL.
HN.
PV CI Oblong.
PX, Quadrate.

For they are the $\frac{1}{2}$ of the right lines of CT, HG. Likewiſe are proportionall.

Proport.
CL.
HN.
CL, HX Oblong.
HN, HX Oblong.

But by the foreſaid Lemma, the Oblongs CL, HX; OC, CK, are equall.

Alſo are equall the
Obl. HN, HX, becauſe they are as the altitudes CL, HN.
Quadrate HM. by the 2. conſect. 4. 8. Ram.

Therefore are

Proport.
Oblong PV, CI.
Quadrate PX.
Oblong OC. CK.
Quadrate HM. which was to be demonſtrated.

CHAP. III.

Of the Dimenſion of Rectangular Sphe-call Triangles.

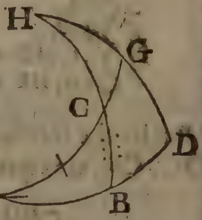
PROBL. I. The Hypotenuſa and an oblique Angle given; to finde the LEGG oppoſite to the given angle.

Propt. term.

As the whole ſine,
To the ſine of the Hypotenuſa;
So the ſine of the given angle,
To the ſine of the legg inquired.

Illuſtration Arithmeticall.

In the Rectangular Triangle ABC, having the Hypotenuſa AC 51*d.* 4′. and the angle BAC 30*d.* 0′. to finde the legg BC.



		Logarith.
Whole ſine	AG. 90*d.* 0′.	10.00000
Si. of the Hyp.	AC. 51. 4.	9.89091
Si. of the angle	*GD.* 30. 0.	9.69897
Si. of the legg.	CB. 22. 53.	9.58988

PROBL. II. The Hypotenuſa and a Legg given; to find the other LEGG.

Prop. termes.

As the ſine compl: of the given legg,
To the whole ſine;
So the ſine compl: of the Hypotenuſa,
To the ſine compl: of the legg inquired.

Illu-

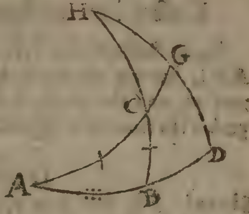


Illuſtration Arithmeticall.

In the Rectangular Triangle BC having the Hypotenuſa C 51*d.* 4'. and the legg BC 2*d.* 53'. to finde the legg *B.*

			Logarith.
s the ſine of	HC.	67*d.*7'.	9.9644003
To the whole ſine	H*B.*	90. 0.	10.0000000
o the ſine of	CG.	38. 56.	9.7980906
To the ſine of	BD.	43. 0.	9.8336903
The complement is AB		47. 0.	

Otherwiſe.

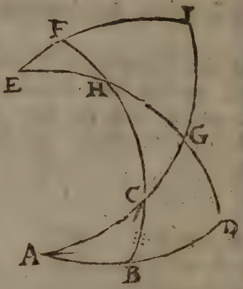
As the Radius,
To the Secant of the given legg;
So the ſine complement of the Hypotenuſa,
To the ſine compl: of the legg inquired.

PROBL. III. The Oblique Angles given; to finde either LEGG.

As the ſine ~~complement~~ of the ~~legg~~ angle *contermi-nate with the inquired legg,*
To the whole ſine;
So the ſine compl: of the other oblique angle,
To the ſine compl: of the legg inquired.

Illu-

Illuſtration Arithmet:



In the Rectangular Triangle ABC, having the angle ACB 70*d.* 4′. and the angle BAC 30*d.* 0′. to find the Legg BC.

			Logarith.
Sine of	FI.	70*d* 4.	9.97316
Sine of	GH.	60. 0.	9.93753
Whole ſi.	FC.	90. 0.	10 00000
Sine of	HC.	67. 6.	9.96437

comp ·BC. *Otherwiſe.*

Prop. term.

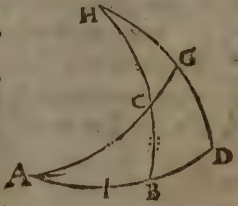
*A*s the Radius,
To the Secant compl: of the angle conterminate with the inquired legg;
So the ſine compl: of the other oblique angle,
To the ſine compl: of the legg inquired.

PROBL. IV. A Legg and an Angle conterterminate with the given Legg, given; to find the other LEGG.

Prop. term.

*A*s the Radius,
To the ſine of the Legg given;
So the Tangent of the oblique angle given,
To the Tangent of the *L*egg inquired.

Illuſtration Arithmeticall.



In the Rectangular Triangle ABC, having the legg A*B* 47*d.* 0′. and the angle *B*AC 30*d.* 0′. to finde the legg *B*C.

			Logarith.
As the Radius	AD.	90d. 0'	10.0000000
To the ſine of	*AB.*	30. 0.	9.7614394
o the Tangent of	DG.	47. 0.	9.8641275
To the Tangent of	*B*C.	22. 53.	9.6255669.

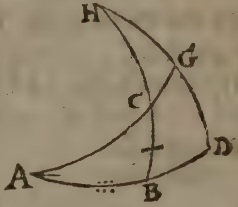
PROBL. V. An Angle and the Legg oppoſite thereto given; to find the other LEGG.

Prop. forme:

As the Tangent of the oblique angle given,
To the Tangent of the legg given;
So the Radius,
To the ſine of the legg inquired.

Illuſtration Arithmeticall.

In the Rectangular Triangle BC, having the Angle *B*AC 30*d.* ' and the legg BC 22*d.* 53'. to nd the legg AB.



			Logarith.
s the Tangent of	DG.	30d. 0'.	9.7614394
To the Tangent of	BC.	22. 53.	9.6253883
o the Radius	AD.	90. 0.	10.0000000
To the Sine of	AB.	46. 59.	9.8639489

Otherwiſe.

As the Radius,
To the Tang.*compl: of the oblique angle given,*
So the Tangent *of the legg given,*
To the ſine of the legg inquired.

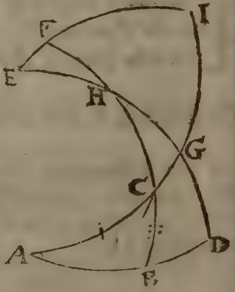
PROBL.

PROBL. VI. The Hypotenuſa and an Angle given; to find the LEGG conterminate with the given Angle.

Prop. termes,

As the Radius,
To the ſine compl: of the given angle;
So the Tang. of the Hypotenuſa,
To the Tang. of the legg inquired.

Illuſtration Arith.



In the Rectangular Triangle ABC, having the Hypotenuſa AC 51*d.* 4′. and BCA 70*d.* 4′. to find the legg BC.

As the Radius	EI.	90*d.*	0′.	10.0000000
To the ſine of	EF.	19.	56.	9.5326608
So the Tangent of	IG.	51.	4.	10.0926642
To the Tangent of	FH,	22.	53.	9.6253250

equall to BC.

PROBL. VII. The Oblique Angles given; to find the HYPOTENVSA.

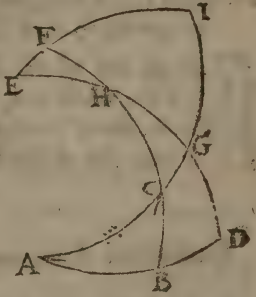
Prop. termes,

As the Tangent of either Angle,
To the Tangent compl: of the other Angle;
So the Radius,
To the ſine compl. of the Hypotenuſa inquired.

Illu-

lluſtration Arithmetical.

In the Rectangular Triangle
BC, having the angles BAC
od o′. and *ACB* 70d. 4′. to
inde the Hypotenuſa *AC*.



		Logarith.
ang. of FI.	70d. 4′.	10.44050
ang. of GH.	60.0.	10.23856
he Rad. IC.	90.0.	10.00000
ine of GC.	38.55.	9.79806
ompl: is AC	51. 5.	

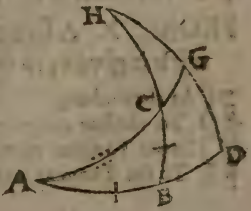
Otherwiſe.

Premiſſe.
As the Radius,
To the Tangent compl: of either angle,
So the Tangent compl: of the other angle,
To the ſine compl: of the Hypotenuſa,

PROBL. VIII. The leggs given; to finde the HYPOTENVSA.

Pron.term.
As the whole ſine,
To the ſine compl: of either legg;
So the ſine compl. of the other legg,
To the ſine compl: of the Hypotenuſa inquired.

n the Rectangular Triangle ABC,
aving the leggs AB 47*d*.0′. and BC
2*d*.53′ to find the Hypotenuſa *AC*



			Logarith.
Vhole ſine	HB	90*d*.0′.	10.00000
ine of	BD	43. 0.	9.83378
ine of	CH	22. 53.	9.96434
ine of	CG	38.55.	9.79812
ompl: is	AC	51. 5.	

PROBL.

PROBL. IX. A Legg and an Angle oppoſite thereto given; to find the HYPOTENVSA.

Prop. termes.

As the ſine of the angle given,
To the whole ſine;
So the ſine of the legg given,
To the ſine of the Hypotenuſa inquired.

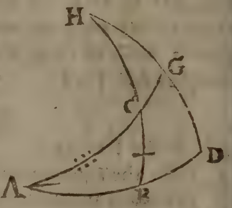


Illuſtration Arithmet.

In the Rectangular Triangle ABC, having the legg *BC* 22*d.* 53′. and the angle *BAC* 30*d.* 0′. to finde the Hypotenuſa *AC.*

As the ſine of	GD.	30*d.*0′.	9.6989700
To the whole ſine	AG.	90. 0.	10.0000000
So the ſine of	CB.	22. 53.	9.5897887
To the ſine of	AC.	51. 3.	9.8908187

Otherwiſe.

Prop. term.

As the Radius,
To the Secant compl: of the angle given;
So the ſine of the legg given,
To the ſine of the Hypotenuſa inquired.

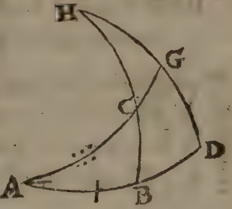
PROBL. X. A Legg and an Angle conterminate with it given; to find the HYPOTENVSA.

Prop. term.

As the Radius,
To the ſine compl: of the angle given;
So the Tangent compl: of the legg given,
To the Tangent compl: of the Hypot. inquired.

Illu-

Illuſtration Arithmeticall.



In the Rectangular Triangle B C, having the legg *A*B 47*d*. ʹ. and the angle BAC 30*d*. ʹ. to finde the Hypotenuſa C.

s the Radius	H D.	90*d*.0.	10.0000000
To the ſine of	H G.	60. 0.	9.9375306
o the *Tangent* of	D B.	43 0.	9.9696559
To the Tangent of	G C.	38.55.	9.9071865
The complement is	*A* C.	51.5.	

ROBL. XI. An Angle and Legg conterminate with it given; to find the other ANGLE.

Prop.term.

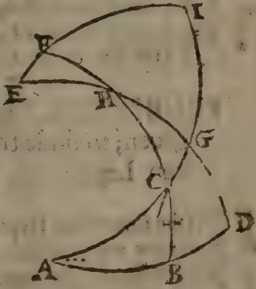
As the whole ſine,
To the ſine of the angle given;
So the ſine compl. of the legg given,
To the ſine compl: of the Angle inquired.

Illuſtration Arithmeticall.

In the Rectangular Triangle ABC, having the angle ACB 70*d*. 4ʹ. and the legg *B*C 22*d*. 53ʹ. to find the *A*ngle BAC.

			Logarith.
Whole ſine	FC	90*d*.0ʹ.	10.00000
Sine of	F I	70. 4.	9.97316
Sine of	HC	67. 7.	9.96440
Sine of	HG	60.0.	9.93756
Compl.	GD	30.0.	

the meaſure of the angle *B*AC.



PROBL. XII. An Angle and Legg oppoſit thereto given; to find the other ANGLE

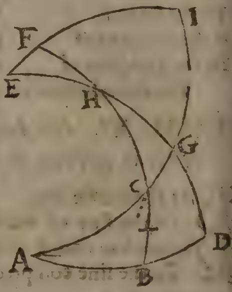
Proportiom,

As the ſine compl. of the legg given,
To the ſine compl. of the Angle given;
So the whole ſine,
To the ſine of the Angle inquired.

Illuſtration Arithmet.

In the Rectangular Triangle ABC, having the angle BAC 30d. 0'. and the legg BC 22d. 53'. to finde the Angle ACB.

		Logar.
Sine of HC	67'. 7.	9.96440
Sine of HG.	60 0.	9.93753
Whole ſi FC.	90. 0.	10.00000
Sine of FI.	70. 3.	9.97313



Otherwiſe.

Proport.

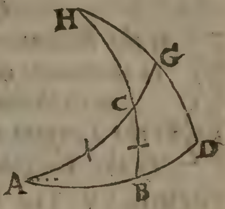
As the Radius,
To the Secant of the given legg;
So the Sine compl. of the Angle given,
To the ſine of the Angle inquired.

PROBL. XIII. The Hypotenuſa and a Leg given; to finde the Angle oppoſite to the gi ven Legg.

Prop.term.

As the ſine of the Hypotenuſa,
To the whole ſine;
So the ſine of the legg,
To the ſine of the Angle inquired.

Illuſtration Arithmeticall.



In the Rectangular Triangle ABC, having the Hypotenuſa AC 51*d*.4′. and the legg BC 22*d*.53′. to finde the Angle BAC.

		Logar.
Sine of AC.	51*d*.4′.	9.8909113
Whole ſi. AG.	90. 0.	10.0000000
Sine of CB.	22.53.	9.5897887
Sine of GD.	30. 0.--	9.6988774

Otherwiſe.

Prop. terms.

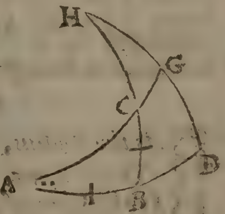
As the whole ſine,
To the Secant compl: of the Hypotenuſa,
So the ſine of the legg,
To the ſine of the Angle inquired.

PROBL. XIIII. The Leggs given; to find either oblique ANGLE.

Prop. termes.

As the ſine of the legg conterminate with the angle inquired.
To the Radius;
So the Tangent of the other legg,
To the Tangent of the angle inquired.

Illuſtration Arithmeticall.



In the Rectangular Triangle ABC, having the leggs AB 47*d*.0′. and BC 22*d*.53′. to finde the Angle BAC.

		Logarith.
Sine of AB.	47*d* 0′.	9.8641275
The Rad. AD.	90.0.	10.0000000
Tang. of BC.	22.53.	9.6253883
Tang. of DG.	29.59.+	9.7612608

Otherwiſe.

Propor.termes.

As the Radius,
To the Secant compl: of the legg conterminate with the angle inquired;
So the Tangent of the other legg,
To the Tangent of the Angle inquired.

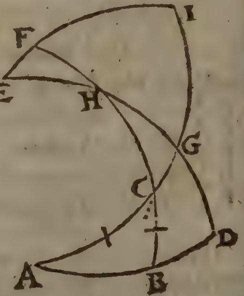
PROBL. XV. The Hypotenuſa and a Legg given; to find the ANGLE comprehended by them.

Propor.term.

As the Tang. of the Hypotenuſa,
To the Tangent of the legg;
So the Radius,
To the ſine compl: of the Angle inquired.

Illuſtration Arithmet.

In the Rectangular Triangle ABC, having the Hypotenuſa AC 51d. 4'. and the legg BC 22d. 53'. to finde the Angle ACB.



	Logarith.
Tang. of IG 51d. 4'.	10.09266
Tang of FH 22. 53.	9.62538
The Rad. I E 90. 0.	10.00000
Sine of F E 19. 56.	9.53272
Compl. is FI 70. 4	

the meaſure of the angle ACB.

Otherwiſe.

Prop. termes.

As the Radius,
To the Tang. compl: of the Hypotenuſa,
So the Tang. of the legg,
To the ſine compl: of the angle inquired.

PROBL.

PROBL. XVI. The Hypotenuſa and an Angle given; to find the other ANGLE.

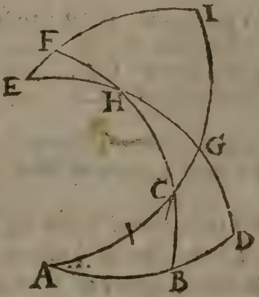
Prop. termes.

As the Radius.
To the ſine compl. of the Hypotenuſa;
So the Tangent of the oblique angle given,
To the Tang.compl. of the angle inquired.

Illuſtration Arithmet.

In the Rectangular Triangle *A*BC, having the Hypotenuſa AC 51d. 5'. and the angle AC*B* 70d.4'. to find the angle BAC.

		Logarith.
The Rad. CI	90d.0'.	10.00000
Sine of CG	38.55.	9.79809
Tang. of FI	70. 4.	10.44050
Tang.of GH	60.0.	10.23859



CHAP. IV.

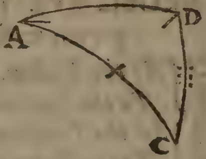
Of the Dimenſion of Obliquangular Sphericall Triangles.

PROBL. I. Two Angles and a ſide oppoſite to one of the Angles given; to finde the SIDE oppoſite to the other Angle.

Prop. termes.

As the ſine of the angle oppoſite to the given ſide,
To the ſine of the given ſide;
So the ſine of the other Angle,
To the ſine of the ſide inquired. Conſect. 3.

Illuſtration Arithmeticall.



In the Obliquangular *Triangle* *A*CD, having the *Angles* CDA 104*d*. 0′. C*A*D 36*d*. 8′. and the ſide A C 42*d*. 9′. to finde the ſide C D.

			Logarith.
As the ſine of	CD*A*	104*d*. 0′.	9.9869041
To the ſine of	*A*C	42. 9.	9.8267703
So the ſine of	C*A*D	36. 8.	9.7706063
To the ſine of	CD	24. 4.	9.6104725

The two ſides together with their oppoſite angles thus found, the third ſide may be obtained by this proportion.

As the ſine of ½ the difference of the Angles,
To the ſine of ½ the ſumme of the Angles,
So the Tangent of ½ the difference of the ſides,
To the Tangent of ½ the other ſide inquired.

PROBL. II. Two ſides with the Angle comprehended by them given, to find the other SIDE.

For the ſolution of this and moſt of the ſubſequent Problemes wherein are required two operations, I ſuppoſe the Obliquangular Triangle to be reduced into two Rectangulars by a Perpendicular drawne from an *Angle* to the oppoſite ſide or *Baſe*, continued if need require. Which Perpendicular muſt alwayes fall from the extremity of a knowne ſide, and oppoſite to a knowne angle annexed to that ſide. Sometimes conterminate with or incident on a ſide required. And whereas each *Rectangular* conſiſteth of two leggs, the Perpendicular being one in both, therefore to avoid circomlocution

tion In expreſsing the termes of the proportion, I thinke fit (excluding thoſe of the Perpendicular) to call the other leggs, *Baſes*; diſtinguiſhing them by the firſt and ſecond *Baſe*. The firſt *Baſe* ſhall be alwayes the legg of that Rectangular Triangle, whereof two termes are knowne, viz. the Hypotenuſa and an angle conterminate with the ſame. The ſecond Baſe is the legg of the other *Rectangular*. And ſo the *Angle* from whence the Perpendicular falleth, being reduced into two, which we call verticall Angles, wee diſtinguiſh them by the firſt and ſecond verticall Angles. The firſt verticall angle is of that Rectangular Triangle, whereof two termes are knowne as aforeſaid, being alwayes oppoſite to the firſt *Baſe*; And the ſecond verticall Angle is that of the other *Rectangular* oppoſite to the ſecond *Baſe*. Thus in the ſcheme following, *A*B is the firſt *Baſe* of ABC, and *D*B the ſecond *Baſe* of D*B*C. In like manner AC*B* is the firſt verticall angle of A*B*C, oppoſite to A*B*; and DC*B* the ſecond verticall angle of D*B*C, oppoſite to D*B*.

Now in theſe Obliquangular Triangles made *Rectangulars* by the Perpendicular, we may by the helpe of the 4.5.6. and 7 conſectaries of the ſecond chapter of the ſecond *Booke* (the *Radius* and Perpendicular alwayes excluded) with great facility obtaine our deſire, whether it be ſide or *Angle*. *And* for perſpicuities ſake according to the method of the precedent chapter in *Rectangulars*, I will demonſtratively deliver the ſolution of each Obliquangular. And leaſt the Perpendicular which falls ſometimes within, ſometimes without the Triangle (according as the Angles at the Baſe are of the ſame or different affections, prop. 25. ch. 1.) ſhould breed confuſion in the calculation, I thought it therefore convenient to adioyne to each Probleme two ſchemes noted with the ſame characters, that ſo the harmony betweene the termes of the proportions and *Arithmeticall* operations may bee ſeene to hold in both.

In this Caſe the Perpendicular may fall from the extremity of either ſide, but oppoſite to the Angle given.

1. For the firſt Baſe. *Probl. 6. ch. 3.*

Prop. termes.

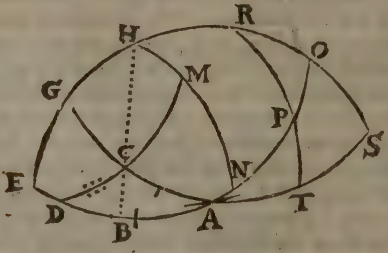
As the Radius,
To the ſine compl: of the angle comprehended;
So the Tangent of the Hypotenuſa,
To the Tangent of the firſt Baſe.

And ſo by conſequence the ſecond Baſe.

2. For the ſide inquired. *Conſect. 5. ch. 2.*

Prop. termes.

As the ſine complement of the firſt Baſe,
To the ſine compl: of the ſecond Baſe;
So the ſine compl. of the Hypotenuſa,
To the ſine complement of the ſide inquired.



In the precedent Obliquangular Triangle ACD where the Perpendicular falls within, having the ſides AD 42*d*.9'. AC 30*d*.0'. and the angle DAC 36*d*.8'. to finde the ſide DC.

1. For

1. For the Baſe AB.

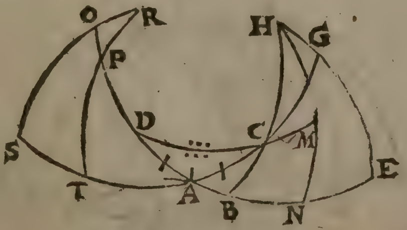
			Logarith.
As the Radius	RS	90d 0.	10.0000000
To the Sine compl:	OS viz. RO	53. 2.	9.9072215
So the Tang. of the Hyp.	TS = AC	30. 0.	9.7614394
To the Tangent of	OP = AB	25. 0.	9.6686609
Whoſe complement is	PA = BE	65. 0.	

Subtract *AB* 25*d*.0′. the firſt *Baſe* found, from A D 42d.9′. there remaine 17*d*.9′. the ſecond *Baſe* D *B*.

2. For the ſide DC.

			Logarith.
As the Sine compl:of	A*B* viz *B*E.	65*d*.0′.	9.9572757
To the Sine compl:of	*DB* viz. *B*N.	72.51.	9.9802080
So the Sine compl:of	AC viz. CG.	60. 0.	9.9375306
To the Sine compl:of	*D*C viz. CM.	24. 5.	9.9604629

In the following Obliquangular Triangle AC*D* where the Perpendicular falls without, having the ſides A*D* 24*d*.4′. AC 30*d*.0′. and the angle *D*AC 104*d*. 0′. the ſide *D*C may bee found after the ſame method to be 42d.9′.



PROBL.

PROBL. III. Two Angles and a ſide oppoſite to one of them given; to finde the SIDE comprehended by thoſe angles.

In this caſe let the Perpendicular fall from the extremity of the given ſide on the ſide inquired; continued if need be.

1. For the firſt Baſe. *Probl. 6. ch. 3.*

Prop. termes.

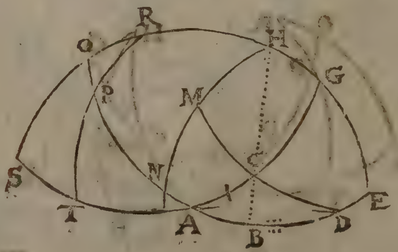
As the Radius,
To the ſine compl: of the Angle conterminate with the Hypotenuſa;
So the Tangent of the Hypotenuſa,
To the Tangent of the firſt Baſe.

2. For the ſecond Baſe. *Conſect. 6. ch. 3.*

Propor. term.

As the Tang. *of the Angle oppoſite to the Hyp.*
To the Tangent of the other Angle;
So the ſine of the firſt Baſe,
To the ſine of the ſecond Baſe.

If the perpendicular fall within the Triangle, the ſumme of the Baſes; If without, their difference is the angle inquired,



In the precedent Obliquangular Triangle *A*DC, where the perpendicular falls within, having the Angles CDA 36*d*. 8′. CAD 46*d*. 18′. and the ſide AC 24*d*. 4′. to find the ſide AD.

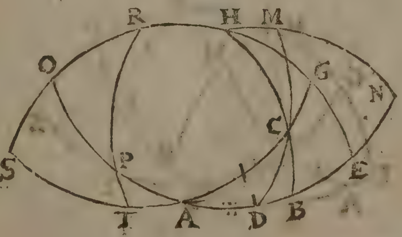
1. For the Baſe AB.

			Logarith.
As the *Radius*	RS.	90*d*. 0′.	10.0000000
To the Sine compl: of OS viz.	OR.	43. 42.	9.8394041
So the Tang. of the Hyp. ST =	AC.	24. 4.	9.6499416
To the Tangent of OP =	*AB*.	17. 9.	9.4893457

2. For the Baſe DB.

			Logarith.
As the Tangent of D viz.	N M.	36*d*. 8′.	9.8633847
To the Tang of A viz.	G E.	46. 18.	10.0197144
So the Sine of the 1. Baſe	A B.	17. 9.	9.4696369
To the Sine of the 2. *Baſe*	D *B*.	25. 0.	9.6259666
The ſumme of the *Baſes* is	A D.	42. 9.	

In the following Obliquangular Triangle ADC, where the perpendicular falls without, having the Angles CDA 104*d*. 0′. C*A*D 36*d*. 8′. and the ſide *A*C 42*d*. 9′. the ſide AD ſhall be found after the ſame method to be 30*d*. 0′.



PROBL.

PROBL. IV. Two ſides and an Angle oppoſit to either of them given; to find the other SIDE.

In this Caſe let the Perpendicular fall from the concurſ of the given ſides on the ſide inquired, continued if need require.

1. For the firſt Baſe. *Probl. 6. ch. 3.*

Propor. termes.

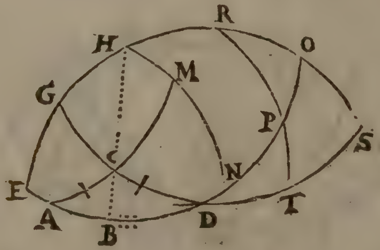
As the Radius,
To the ſine compl: of the given Angle;
So the Tangent of the Hypotenuſa conterminate with the given Angle,
To the Tangent of the firſt Baſe.

2. For the ſecond Baſe. *Conſect. 5. ch. 2.*

Prop. termes.

As the ſine compl: of the Hypotenuſa conterm.
To the ſine compl: of the other ſide;
So the ſine compl: of the firſt Baſe,
To the ſine compl. of the ſecond Baſe.

If the Perpendicular fall within the Triangle, the ſumme of the Baſes; If without, their difference is the ſide inquired.



In

In the precedent Obliquangular Triangle ACD, where the perpendicular falls within, having the ſides *DC* 30*d*.0′. AC 24*d*.4′. and the Angle ADC 36*d*.8′. to find the ſide *AD*.

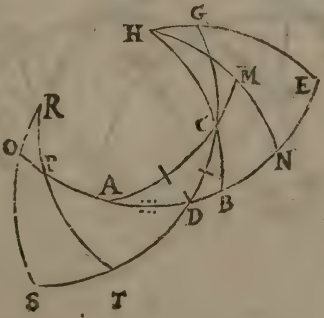
1. For the Baſe DB.

			Logarith.
As the Radius,	RS.	90*d*.0′.	10.0000000
To the Sine compl:of	OS viz RO.	53. 52.	9.9072215
So the Tang. of the Hyp.	*DC* = ST.	30. 0.	9.7614394
To the Tangent of	OP = *DB*.	25. 0.	9.6686609

2. For the Baſe. AB.

As the Sine compl. of	*DC* viz. CG.	60*d*. 0′.	9.9375306
To the Sine comp.of	AC viz. CM.	65.56.	9.9605048
So the Sine compl. of	*D* B viz. BE.	65. 0.	9.9572757
To the Sine compl. of	A B viz. BN.	72.51.	9.9802499
Therefore the Baſe	*AB* is	17 9.	
The Baſe	*DB* is	25.0.	
Therfore the ſum:of the Baſes is	AD.	42.9.	

In the following Obliquangular Triangle *AD*C, where the Perpendicular falls without, having the ſides DC 24*d*. 4′. *AC* 137*d*.51′. and the *A*ngle ADC 104*d*.0′. the ſide AD may be found after the ſame methode to be 30*d*.0′.



PROBL.

PROBL. V. Two Angles and the ſide comprehended by them given; to find either of the other SIDES.

In this Caſe let the Perpendicular fall from the concurſe of the ſides given and ſought for, on the third, continued if need require.

1. For the firſt verticall Angle. *Probl.16.ch.3.*

Prop. termes.

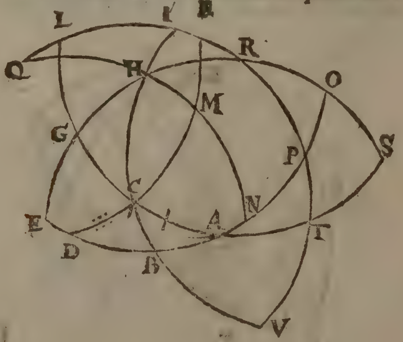
As the Radius,
To the ſine complement of the Hypotenuſa;
So the Tangent of the angle oppoſite to the inquired ſide,
To the Tangent compl: *of the firſt verticall angle.*

Hence by conſequence the ſecond verticall angle.

2. For the ſide inquired. *Conſect.7.ch.2.*

Prop. termes.

As the ſine compl: of the ſecond verticall Angle,
To the ſine compl: of the firſt verticall Angle;
So the Tangent of the Hypotenuſa,
To the Tangent of the ſide inquired.



In

In the precedent Obliquangular Triangle AC*D*, where the perpendicular falls within, having the Angles DAC 36*d*.8'. *A*C*D* 104*d*.0'. and the ſide *A*C 30*d* 0' to finde the ſide DC.

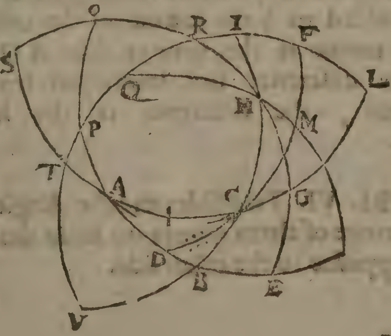
1. For the Angle ACB.

			Logarith.
As the Radius,	AS	90*d*.0'.	10.0000000
To the ſine compl: of AC viz.	AT	60. 0.	9.9375306
So the Tangent of C*A*B viz.	SO	36. 8.	9.8633847
To the Tangent	TP	32. 18.	9.8009153
The compl. is TV =	IL	57. 42. of *ACE* the 1.	
Subtract this from 104*d*.0'. reſteth		46. 18. for *DCE* the 2.	

2. For the ſide DC.

			Logarith.
As the ſine compl. of FI viz.	QI.	43*d*.42'.	9 8394041
To the ſine compl: of LI viz	RI.	32. 18.	9 7278277
So the *T*angent of AC viz	LG	30. 0.	9.7614394
*T*o the *T*angent of FM =	DC	24. 4.	9.6498630

In the following Obliquangular Triangle *A*C*D*, where the Perpendicular falls without, having the Angles DAC 36*d* 0'. ACD 46*d*. 18'. and the ſide AC 42*d*. 9'. the ſide DC will be found after the ſame method 24*d*.4'. as before.



PROBL.

We may alſo from the ſame data, with nō leſſ labour obtaine the other two ſides after this manner.

For the I. Operation.

Prop.termes.

As the ſine of $\frac{1}{2}$ the ſumme of the Angles,
To the ſine of $\frac{1}{2}$ the difference of the Angles;
So the Tangent of $\frac{1}{2}$ the ſide comprehended,
To the Tang. *of $\frac{1}{2}$ the differ. of the other ſides*

For the II. Operation.

Prop. termes.

As the ſine of $\frac{1}{2}$ the ſumme of the Angles,
To the ſine compl: of $\frac{1}{2}$ the differ. of the Angles;
So the Tangent of $\frac{1}{2}$ the ſide comprehended,
To the Tangent of $\frac{1}{2}$ the ſumme of the ſides.

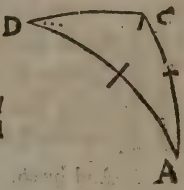
Therefore if $\frac{1}{2}$ the difference of the other ſides, bee added to $\frac{1}{2}$ the ſumme of the other ſides, the ſumme is the greater ſide A D; and if $\frac{1}{2}$ the difference bee ſubtracted from $\frac{1}{2}$ the ſumme, the difference is the leſſer ſide D C.

PROBL. VI. Two Sides and the Angle oppoſite to one of them given; to finde the ANGLE oppoſite to the other ſide.

Prop.terme.

As the ſine of the ſide oppoſite to the given angle,
To the ſine of the given Angle;
So the ſine of the other ſide,
To the ſine of the Angle inquired. Conſ.3.ch.2.

Illuſtration Arithmeticall.



In the Obliquangular Triangle *A*DC having the ſides AC 30d. 0′. *A*D 42 *d* 9′. and the angle ACD 104*d*. 0′. to find the angle *A*DC.

			Logarith.
As the ſine of the ſide	AD	42*d*. 9′.	9.8267703
To the ſine of the angle	ACD	104. 0.	9.9869041
So the ſine of the ſide	AC	30. 0.	9.6989700
To the ſine of the angle	ADC	46.18.	9.8591038

The two Angles together with their oppoſite ſides thus acquired, the third Angle may bee had after the like manner whereby the third ſide was in the precedent Probleme.

Prop.termes.

As the ſine of $\frac{1}{2}$ *the difference of the ſides,*
To the ſine of $\frac{1}{2}$ *the ſumme of the ſides;*
So the Tangent of $\frac{1}{2}$ *the differ: of the angles,*
To the Tang.*compl: of* $\frac{1}{2}$ *the other angle inquir.*

PROBL.

PROBL. VII. Two Angles and the ſide comprehended by them given; to find the other ANGLE.

In this *Caſe*, let the Perpendicular fall from the extremit of the given ſide, and oppoſite to the angle inquired.

1. For the firſt verticall Angle. Probl.16.ch.3.

Prop. termes.

As the Radius,
To the ſine compl: of the Hypotenuſa,
So the Tang. of the angle at the Baſe,
To the Tang. compl: of the firſt verticall angle

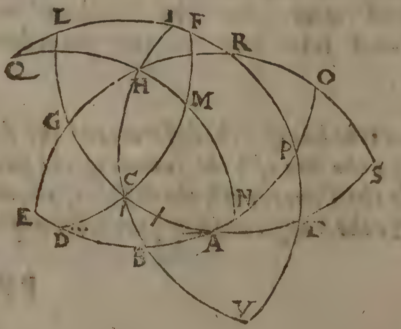
And by conſequence the ſecond verticall angle.

2. For the *Angle* inquired. Conſect. 4. ch. 2.

Prop. termes.

As the ſine of the firſt verticall angle,
To the ſine of the ſecond verticall angle,
So the ſine compl: of the angle at the Baſe,
To the ſine compl: of the inquired angle.

If the Perpendicular fall within or without but next oppoſite to the given angle, the fourth proportionall: If withou



but

but next oppoſite to the inquired angle, the complement of the fourth to a ſemicircle is the angle inquired.

In the precedent Obliquangular Triangle ACD, where the perpendicular falls within, having the angles *DCA* 104*d*.0′ DAC 36*d*.8′ and the ſide AC 30*d* 0′. to find the Angle ADC.

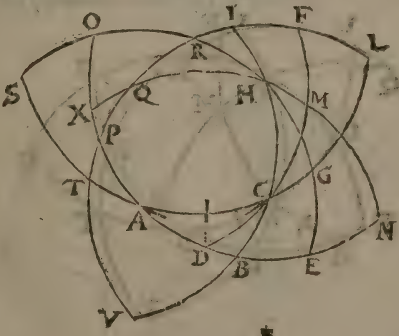
1. For the Angle ACB. *Logarith.*

As the Radius	AS	90*d*.0′.	10.0000000
To the ſine compl:of *A*C viz.	AT	60. 0.	9.9375306
So the Tangent of CAB viz.	SO	36. 8.	9.8633847
To the Tangent	TP	32.18	9.8009153
The Complement is TV =	IL	57.42.T.	of ACB the 1.
Subtract this from 104*d*. 0′. reſteth		46.18.	for DC*B* the 2.

2. For the Angle ADC.

As the ſine	IL	57d.42.	9.9269912
To the ſine	IF	46. 18.	9.8591185
So the ſine compl: EG viz.	HG	53. 52.	9.9072215
To the ſine compl: NM viz.	HM	43. 42.	9.8293488

In the following Obliquangular Triangle *AD*C, where the Perpendicular falls without, having the *A*ngles DCA 36*d*. 8′. D*A*C 46*d*. 18′. and the ſide AC 42*d*.9′. the angle A*D*C will be found after the ſame methode to be 104*d*. 0′.



PROBL. VIII. Two ſides and an Angle oppoſite to either of them given;to find the ANGLE comprehended by them.

In this Caſe let the Perpendicular fall from the inquired angle.

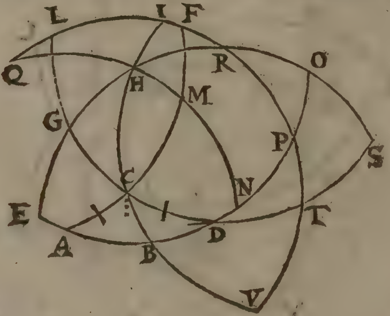
1. For the firſt verticall Angle. *Probl.16.ch.3.*

Prop. termes.
As the Radius,
To the ſine compl: of the Hypotenuſa;
So the Tangent of the given angle,
To the Tang.compl: of the firſt verticall angle.

2. For the ſecond verticall angle. *Conſect. 7. ch. 2.*

Prop. termes.
*As the*Tang.*of the ſide oppoſite to the giuen angle,*
To the Tangent of the other ſide given;
So the ſine compl: of the firſt verticall angle,
To the ſine compl: of the ſecond verticall angle.

If the Perpendicular fall within the Triangle,the ſumme;If without,the difference of the verticall angles is the Angle inquired.



In the precedent Obliquangular Triangle ACD, where the perpendicular falls within, having the ſides AC 24d.4′. CD 30d.0′. and the angle *A*DC 36d.8′, to finde the Angle ACD.

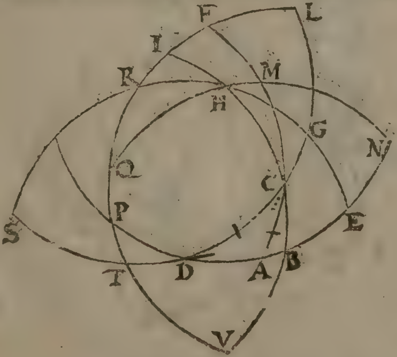
1. For the firſt verticall Angle BCD.

			Logarith.
As the Radius	DS	90d. 0′.	10,0000000
To the ſine compl. of	DC viz. DT	60. 0.	9.9375306
So the Tangent of	AC viz. SO	36. 8.	9.8633847
To the Tangent	TP	32.18.	9.8009153
The complement is	TV = L I	57.42. Tang. of BCD.	

2. For the ſecond verticall Angle A B.

As the *T*angent of	*A*C = FM.	24d. 4′.	9.6499416
To the Tangent of	DC = LG.	30. 0.	9.7614394
So the ſine compl: of	L I viz IR.	32. 18.	9.7278277
To the ſine compl: of	I F viz. IQ	43. 42.	9.8393255
Therefore the compl:	I F is	46. 18.	
And the firſt arch	L I	57. 42.	
The ſumme is for the angle *A*CD		104. 0. ſought after.	

In the following Obliquangular *T*riangle *A*C*D*, where the Perpendicular falls without, having the ſides AC 30d.0′. CD 42d. 9. and the Angle ADC 46d.18′. the angle ACD will be found after the ſame method to be 36d.8′.



PROBL. IX. Two Angles and a ſide oppoſite to either of them given;to find the other ANGLE:

In this Caſe let the Perpendicular fall from the inquired Angle.

1. For the firſt verticall Angle. *Probl.16. ch. 3.*

Propor, termes.

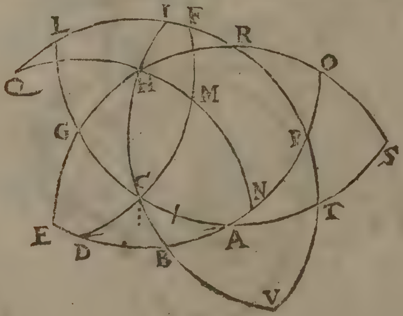
As the Radius,
To the ſine compl: of the Hypotenuſa;
So the Tangent of the Angle conterminate with the Hypotenuſa,
To the Tang.compl:of the firſt verticall Angle.

2. For the ſecond verticall Angle. *Conſect. 4.ch.2.*

Prop, termes.

As the ſine compl: of the angle conterminat with the Hypotenuſa,
To the ſine compl: of the other given angle,
So the ſine of the firſt verticall angle,
To the ſine of the ſecond verticall angle.

If the Perpendicular fall within the Triangle, the ſumme; I without,the differ:of the vertical angles is the angle inquired



In

In the precedent Obliquangular Triangle *A*C*D*, where the Perpendicular falls within, having the angles *D*AC 36d. 8′. *A*DC 46*d*. 18′. and the ſide AC 30*d*. 0′. to find the angle AC*D*.

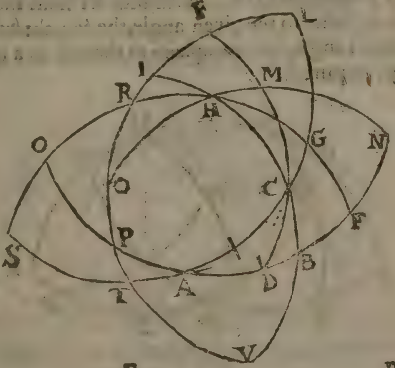
1. For the firſt verticall Angle ACB.

			Logarith.
As the Radius	AS.	90*d*. 0′.	10.0000000
To the ſine compl: of	*A*C viz. AT.	60. 0.	9.937 306
So the Tangent of	BAC viz. SO.	36. 8.	9.8623847
To the Tangent of	TP.	32.18.	9.8009153
The complement is	VT = IL.	57.42.	Tang. of ACB.

2. For the ſecond verticall Angle BCD.

As the ſine compl. of	EG viz. HG	53*d* 52.	9.9072332
To the ſine compl of	NM viz. HM	43. 42.	9.8394041
So the ſine of	*A*CB viz. IL.	57. 42.	9.9269912
To the ſine of	BCD viz. IF.	46. 18.	9.8591628
The ſumme is	ACD	104. 0.	

In the following Obliquangular Triangle AC*D* where the Perpendicular falls without, having the angles *D*AC 46d. 18′. A*D*C 104*d*. 0′. and the ſide *A*C 30d. 0′. the angle AC*D* will be found after the ſame method to be 36*d*. 8′.



PROBL. X. Two ſides and the Angle comprehended by them given; to find either of the other ANGLES.

In this caſe let the Perpendicular fall oppoſite to the inquired *Angle*.

1. For the firſt Baſe. *Probl.6.ch.3.*

Prop. termes.

As the Radius,
To the ſine compl: of the given angle;
So the Tangent *of the Hypotenuſa,*
To the Tangent *of the firſt Baſe.*

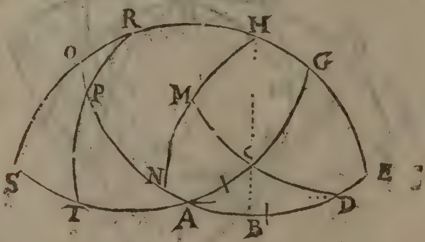
And conſequently the ſecond Baſe.

2. For the Angle inquired. *Conſect.6.ch.2.*

Prop. termes.

As the ſine of the ſecond Baſe,
To the ſine of the firſt Baſe;
So the Tangent of the given Angle,
To the Tangent of an Angle.

If the Perpendicular fall within or without the Triangle, but next oppoſite to the given angle, the fourth: *But* if next to the inquired angle, the complement thereof to a ſemicircle is the angle inquired.



In the precedent Obliquangular Triangle *A*CD, where the perpendicular falls within, having the ſides AC 24*d*. 4′. AD 42*d* 9′ and the Angle DAC 46*d*.18′. to find the Angle ADC.

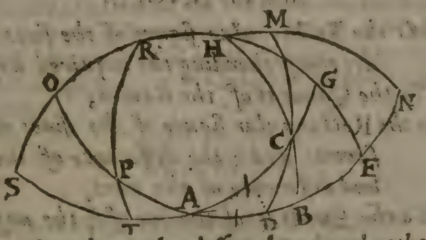
1. For the firſt Baſe AB.

			Logarith.
As the *Radius*	RS.	90*d*. 0′.	10.0000000
To the Sine compl: of SO viz. RO.		43. 42.	9.8394041
So the Tangent of	AC viz. ST.	24. 4.	9.6499416
To the Tangent of	OP = *AB*.	17. 9.	9.4893457
Therefore the ſecond *Baſe*	BD.	25. 0.	

2. For the Angle ADC.

			Logarith.
As the ſine of the 2. Baſe	BD	25*d*. 0′.	9.6259483
To the ſine of the 1. Baſe	AB	17. 9.	9.4695546
So the Tangent of D*A*C viz. EG		46. 18.	10.0197144
To the Tangent of *A*DC viz. NM		36. 8.	9.8633207

In the following Obliquangular Triangle ADC, where the perpendicular falls without, having the ſides *A*C 42*d*. 9′. AD 30*d*. 0′. and the Angle DAC 36*d*. 8′. the angle ADC will be found after the ſame method to be 104*d*. 0′.



With the ſame data and no leſſe paines may the other Angles be bee found after the ſame manner whereby wee found the two ſides at the end of the 5. Probleme.

For the I. Operation.

Prop. termes.

As the ſine of halfe the ſumme of the ſides,
To the ſine of halfe the differ: of the ſides;
So the Tang. compl: of $\frac{1}{2}$ the angle comprehended,
To the Tang; of $\frac{1}{2}$ the differ: of the other angles.

For the II. Operation.

Prop. termes.

As the ſine compl: of halfe the ſum of the ſides,
To the ſine compl: of halfe the differ: of the ſides;
So the Tang. compl. of $\frac{1}{2}$ the angle comprehended,
To the Tang. of $\frac{1}{2}$ the ſum: of the other Angles.

Therefore if $\frac{1}{2}$ the difference of the other Angles be added to $\frac{1}{2}$ the ſumme of the other Angles, the ſumme is the Angle ACD.

And if $\frac{1}{2}$ the difference be ſubtracted from $\frac{1}{2}$ the ſumme, the difference is the Angle ADC.

PROBL. XI. The three ſides given; to find any ANGLE.

Proportionall termes.

As the Rectangular figure of the ſines of the ſides comprehending the inquired angle,
To the Quadrat of the Radius;
So the Re*ctangular figure of the ſines of $\frac{1}{2}$ the ſumme and $\frac{1}{2}$ the difference of the Baſe and difference of the ſides,*
To the Quadrat of the ſine of $\frac{1}{2}$ the angle inquired. Prop. chapt. 2.

There-

Therefore.

1. Take the Sines of the ſides comprehending the inquired angle.
   Or the *Logarithmes* of theſe Sines.
2. Take alſo the Quadrat of the Radius, or the *Logarithme* of the Radius doubled.
3. Compare the Baſe with the difference of both the ſides, and take the halfe ſum and the halfe difference, and their ſines,
   Or their *Logarithmes*.
4. If the factus of the firſt divide the factus of the ſecond and third, the ſide of the Quotient is the ſine of halfe the angle inquired.
   Or if the ſumme of the Logarithmes of the firſt be deducted from the ſumme of the Logarithmes of the ſecond and third, the halfe difference is the *Logarithme* of halfe the angle inquired.

Otherwiſe. 2.

Subtract the *Logarithmes* of the Sines of the ſides comprehending the inquired angle, from the *Logarithmes* of the doubled Radius and of the Sines of halfe the ſumme of the three ſides and difference of the Baſe and halfe ſumme; the halfe of the relique ſhall bee the *Logarithme* of the Sine complement to a Quadrant of halfe the inquired Angle.

Otherwiſe. 3.

From the halfe ſum of the ſides ſubduct each particular, and let the ſumme of the *Logarithmes* of the Sines of the halfe

halfe ſumme and difference of the ſide ſubtending the angle inquired be ſubtracted from the ſumme of the Logarithmes of the ſines of the other differences and the doubled Logarithme of the Radius; the halfe of the relique ſhall be the *Logarithme* of the Tangent of halfe the *Angle* inquired.

Arithmeticall Illuſtration of the 1. *Precept.*

In the Obliquangular Triangle SZP, having the ſides PS 42*d.* 9'. PZ 30*d* 0'. SZ 24*d.*4', to finde the Angle PZS.

		Sines	Logarith.
The ſide PZ	30*d.* 0'.	50000.	9.6989700
The ſide SZ	24. 4.	40780.	9.6104465

1. The factus of the ſines. 2039000000. Sum 19.3094165

2. The Quad. of the Rad. 10000000000. Doubl: 20.0000000

The *Baſe*	PS	42*d.* 9.
The differ: of the ſides	PC	5. 56.
The ſumme	EPC	48. 5.
The difference	CY	36. 13.

			Sines.	Logarith.
The halfe ſum	CO	24*d.* 2½.	40740.	9.6100219
The halfe differ:	CK	18. 6½.	31082.	9.4925014

3. The factus of the ſines 1266280680. Sum 39.1025233 which factus augmented by the Radius 100000, and divided by 2039000000, the Quotient will be 6210302501, the ſide whereof is 78805 the ſine of 52*d.* 0'. which doubled is 104*d.* 0'. the *Angle* inquired PZS.

Or if 19.3094165 be ſubtracted from 39.1025233. the relique is 19.7931068, and the halfe thereof 9.8965534 the Logarithme of the ſine of 52*d.* 0'. whoſe double 104*d.* 0'. is the angle PZS inquired, as before.

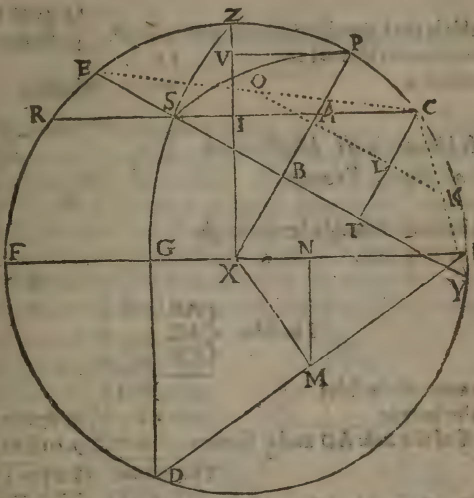
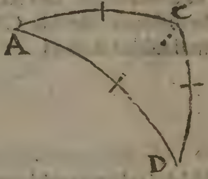


Illuſtration Arithmeticall of the 2. Precept.



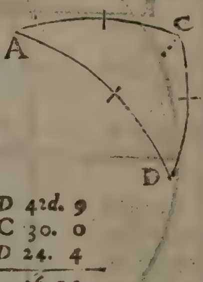
In the Obliquangular Triangle *A*DC, having the Baſe *A*D 42*d.* 9'. AC 30*d.* 0'. and CD 24*d* 4'. to find the Angle AC*D*.

The ſumme of the 3 ſides	96. 13.		Logarith.
The $\frac{1}{2}$ ſumme	48. 6$\frac{1}{2}$.		9.8718113
The differ. of the Baſe and ſides	11. 55.		
The halfe difference thereof	5. 57$\frac{1}{2}$.		9.0162186
The doubled *R*adius			20.0000000
The ſumme			38.8880299
The ſide AC	30*d.* 0'.	Log. 9.6989700	
The ſide CD	24. 4.	Log. 9.6104465	
The ſumme		19.3094165	19.3094165

The

		19.5786134
The halfe is the Logarith.of the ſine of	38*d*.0′.	9.7893067
The complement thereof is	52. 0.	
The double is	104. 0. as before.	

Arithmeticall Illuſtration of the 3. Precept.



In the ſame Triangle let the angle ACD be inquired.

The ſides AD	42*d*. 9	
The ſides AC	30. 0	
The ſides CD	24. 4	
The ſumme of the ſides	96. 13	
The halfe ſumme	48. 6½	9.8718113
The diff:of the *Baſe* AD and ½ ſumme	5.57½	9.0162186
	The ſumme	18.8880299
The differ:of the ſide AC and ½ ſumme	81.6½.	9.4925010
The differ: of the ſide C*D* and ½ ſumme	24.2½.	9.6100219
The doubled Radius		20.0000000
	The ſumme	39.1025233
	Subtract	18.8880299
	The differ:	20.2144934
	The ½ diff:	10.1072467

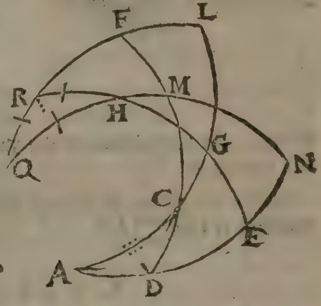
Which is the *Logarithme* of the *Tangent* of 52*d*. 0′.
The double 104*d*.0′. is the Angle AC*D*.

By either of theſe precepts we may obtaine any *Angle*: but this latter I ſuppoſe not inferiour to either of the former, and holds as well in Plane as Sphericall Triangles. The worth whereof is beſt valued by thoſe who have hitherto beene accuſtomed to the ancient laborious Sinicall or the late Proſthapheceticall way.

PROBL.

PROBL. XII. The three Angles given; to finde a SIDE.

This Probleme is the converſe of the precedent, and to be reſolved after the ſame manner, if ſo be we convert the angles into ſides: for the two leſſe Angles are alwayes equall vnto two ſides of a Triangle comprehended by the *Arcs* of great Circles drawne from their Poles; and the third Angle may be greater then a Quadrant, and therefore the complement thereof to a ſemicircle muſt be taken for the third ſide. The angle being found, it ſhall be one of the three ſides inquired.



As in the Triangle ACD the Poles of thoſe Arcs are H, R, Q, which connected make the Triangle HRQ, the ſide of the former Triangle being equall to the Angles of the latter, taking the complement of the greater angle to a ſemicircle for one; As AD equall to the angle at H, or the Arc EN; DC equall to the angle at Q, or the arc MF; and AC equall to the complement of the angle HRQ, or the Arc GL. Therefore if the angles A, D, C, be given, the ſides QR, QH, RH, are likewiſe given.

The Angles therefore of our Triangle thus converted into ſides, if we reſolue the Triangle HRQ according to the precepts of the laſt Probleme, wee may find any of the angles, which is the ſide inquired.

Illu-

Illuſtration Arithmeticall according to the 3. Precept.

The ſides QH	76d. 0	
The ſides RQ	46. 18	
The ſides RH	36. 8	
The ſumme of the ſides	158. 26	
The halfe ſumme	79. 13.	9.9922625
The diff: of the *Baſe* QH and ½ ſumme	3. 13.	8.7490552
	The ſumme	18.7413177
The differ: of the ſide RQ and ½ ſumme	32. 55.	9.7351345
The differ: of the ſide RH and ½ ſumme	43. 5.	9.8344597
The doubled Radius		20.0000000
	The ſumme	39.5695942
	Subtract	18.7413177
	The differ:	20.8282765
	The ½ diff:	10.4141382

Which is the *Logarithme* of the *Tangent* of 68*d*. 56′.
The double is 137. 52.

And the compl: to a ſemicircle thereof 42*d*. 8′. whoſe meaſure is LG = AC.

Chap. V.

Of certaine Logarithmicall compendiums in Trigonometricall Calculations.

To him that is well acquainted with the creation of *Logarithmes*, this Chapter is ſupervacaneus, which onely conſiſteth in giving ſome few Rules for avoiding the ſubtraction of a *Logarithme* by ſubſtituting the *Arithmeticall* complement thereof to be added to the *Logarithmes* of the two middle proportionalls; Which *Arithmeticall* Complement is nothing but the difference betweene the *Logarithme* to be ſubtracted and a number conſiſting of a vnity or binary number with the addition of cyphers. Therefore

1. If neither of the three proportionalls be the whole ſine or Radius, but Sines, Tangents, or ſides, in ſtead of the *Logarithme* of the firſt ſubſtitute the Arithmeticall Complement, the ſumme of the three *Logarithmes* (cutting of a vnity towards the left hand) ſhall bee the Logarithme of the fourth proportionall inquired.

For Example. *Let* bee reſolved the Plane Obliquangular Triangle of the 1. Probl. of the 1. Booke.

		Logarith.	
As the ſide	865.	7.0629839	Ar:Compl:
To the ſine of	37d.27'.	9.7839527	
So the other ſide	1277.	3.1061909	
To the ſine of	116d.12'.	X 9.9531275	

And note, if the firſt of the three proportionals be a *Tangent*, the Arithmeticall complement of its *Logarithme* ſhall bee the ſame with the *Logarithme* of the *Tangent* complement (excepting the Index:) Becauſe the *Radius* is a meane proportionall betweene the *Tangent* and the *Tangent* Complement of an arch. If therefore the *Logarithme* of a *Tangent* bee ſubducted from the doubled Logarithme of the *Radius*, the relique will be the *Logarithme* of the *Tangent* complement. And ſo wee may both make and examine the *Logarithmicall* *Tangents*.

For Example. *Let* bee reſolved the ſecond operation of the 3. Probl. of the 3. ch. of the ſecond Booke.

		Logarith.	
As the *Tangent* of	36d.8'.	0.1366153	Ar. Compl.
To the *Tang.* of	46.18.	10 0197144	
So the ſine of	17.9.	9.4696369	
To the ſine of	25.0.	X 9.6259666	

2. If the foure proportionalls doe not expreſſe lines but

Rectan-

Rectangular figures as in the 11 Probleme, there we may tak the Arithmeticall Complements for both the Logarithmes o the firſt proportionall, and omitting the doubled Logarithm of the Radius, we may obtaine what we deſire by Additio onely.

For Example. Let be reſolved the Triangle of the 11 Probl: of the 4 Chapter of this booke, according to the third precept.

The halfe ſumme of the ſides	48*d*. 6½.	0.1281887
The firſt difference	5.57½.	0.9837814
The ſecond difference	18. 6½.	9.4925014
The third difference	24. 2½.	9.6100219
The ſumme		20.2144934
The halfe ſumme as before		10.1072467

FINIS.

Errata Typographica.

PAg. 1 Lin. 18. for, Reg. read Ram. P. 7 lin. 15. for, of two, read, of the two. p. 8. l: 1. for any Triangle, r. any plane Triangle. p. 11. l. penult. for 47460. r. 88020. p. 16. l. 21. for Tangent of A, r. Tangent of ½ the angles at B and C. p. 16 l. ult. for Probl. likewiſe, dele. likewiſe. p. 17. l. ult. for 26 is 600. r. 37 d: 25′. p. 19 l. 12 for 26 d: 21′ r. 26 d. 24′. p. 20. l. 18. and 20. for theſe r. thoſe. p. 23 l. 11 for OD and OL, r. OD and OI. p. 24 l. 7. for PIA, r. PIH. p. 27. l. 2. for perpendiculars r. perpendicular. p 39 l. 19 for ſine complement of the legg r. ſine complement of the angle p. 40. l. 10 inſert, compl. is CB 22 d. 54′. p. 42 l. 17. inſert, equall to BC. p. 77. l. 5. for but all Sines, dele. all.

In the Canon: log. Tang. 2 gr. 49′. r. 8.6919629. Tang. 15 gr. 46′. r. 28 234.32. Log. Tang. 77 gr, 16′ r, 10.6459470. Sec. 81 gr. 37′ r. 685893.38.

CANONES
SINVVM,
TANGENTIVM,
SECANTIVM:

ET

LOGARITHMORVM
Pro SINVBVS &
TANGENTIBVS.

Grad. 0

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tan
0	0	0	100000,00	0	0
1	29,09	29,09	100000,00	6,4637261	6,4637261
2	58,18	58,18	100000,02	6.7647561	6,7647562
3	87,27	87,27	100000,04	6.9408473	6,9408475
4	116,36	116,36	100000,07	7.0657860	7,0657863
5	145,44	145,44	100000,11	7.1626960	7.1626964
6	174,53	174,53	100000,16	7.2418771	7.2418778
7	203,62	203,62	100000,21	7.3088239	7,3088248
8	232,71	232,71	100000.27	7.3668157	7.3668169
9	261,80	261,80	100000,34	7.4179681	7,4179696
10	290,89	290,89	100000,42	7.4637255	7,4637273
11	319,98	319,98	100000,51	7.5051181	7,5051203
12	349,06	349,07	100000,61	7.5429065	7,5429091
13	378,15	378,16	100000,72	7.5776684	7,5776715
14	407.24	407,25	100000,83	7.6098530	7,6098566
15	436,33	436,33	100000,95	7.6398160	7,6398201
16	465,42	465,42	100001,08	7.6678445	7,6678492
17	494,51	494,51	100001.22	7.6941733	7,6941786
18	523,60	523,60	100001,37	7.7189966	7,7190026
19	552.68	552,69	100001,53	7.7424775	7,7424841
20	581,77	581,78	100001,70	7.7647537	7,7647610
21	610,86	610,87	100001.87	7.7859427	7,7859508
22	639,95	639,96	100002,05	7.8061458	7,8061547
23	669,04	669,05	100002,24	7.8254507	7,8254604
24	698,13	698,14	100002,44	7.8439338	7,8439444
25	727,21	727,23	100002,65	7.8616623	7,8616738
26	756,30	756,32	100002,86	7.8786953	7,8787077
27	785,39	785,41	100003,08	7.8950854	7,8950988
28	814,48	814,50	100003,31	7.9108793	7,9108938
29	843,57	843,60	100003,55	7.9261190	7,9261344
30	872,65	872,69	100003,80	7.9408419	7,9408584

89 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
60	10000000	Infinit.	Infinit.	10,0000000	Infinit.
59	99999,99	343774667,	343774682,	9.9999999	13,5362739
58	99999,98	171887319,	171887348,	9.9999999	13,2352438
57	99999,96	114591530,	114591574.	9.9999998	13,0591525
56	99999,93	85943630,	85943689,	9.9999997	12,9342137
55	99999,89	68754887,	68754960,	9.9999995	12,8373036
54	99999,84	57295721,	57295809,	9.9999993	12,7581222
53	99999,79	49110600,	49110702,	9.9999991	12,6911752
52	99999,73	42971757,	42971873,	9.9999988	12,6331831
51	99999,66	38197099,	38197230,	9.9999985	12,5820304
50	99999,58	34377371,	34377516,	9.9999982	12,5362727
49	99999,49	31252137,	31252297,	9.9999978	12,4948797
48	99999,39	28647773.	28647948,	9.9999974	12,4570909
47	99999,28	26444080,	26444269,	9.9999969	12,4223285
46	99999,17	24555198.	24555402,	9.9999964	12,3901434
45	99999,05	22918166.	22918385,	9.9999959	12,3601799
44	99998,92	21485762,	21485995,	9.9999953	12,3321508
43	99998,78	20221875,	20222122,	9.9999947	12,3058214
42	99998,63	19098419,	19098680,	9.9999940	12,2809974
41	99998,47	18093220,	18093496,	9.9999934	12,2575159
40	99998,30	17188540,	17188831,	9.9999927	12,2352390
39	99998,13	16370019,	16370325,	9.9999919	12,2140492
38	99997,95	15625908,	15626228,	9.9999911	12,1938453
37	99997,76	14946502,	14946837,	9.9999903	12,1745396
36	99997,56	14323712,	14324061,	9.9999894	12,1560556
35	99997,35	13750745,	13751108,	9.9999885	12,1383262
34	99997,13	13221851,	13222229,	9.9999875	12,1212923
33	99996,91	12732134,	12732526,	9.9999866	12,1049012
32	99995,58	12277396,	12277803,	9.9999856	12,0891062
31	99996,44	11854018,	11854440,	9.9999845	12,0738656
30	99996,19	11458865,	11459301,	9.9999835	12,0591416

Grad. o

Minut.	Sinus	Tang.	Secant	Log.Sin.	Log.Tan
30	872,65	872,69	100003,80	7.9408419	7,9408584
31	901.74	901,78	100004,06	7.9550819	7.9550996
32	930,83	930,87	100004,33	7.9688698	7,9688886
33	959.92	959.96	100004,61	7.9822334	7,9822534
34	989,00	989,05	100004,89	7.9951980	7,9952192
35	1018,09	1018,14	100005,18	8,0077867	8,0078092
36	1047,18	1047,24	100005,48	8.0200207	8,0200445
37	1076,27	1076,33	100005.79	8.0319195	8,0319446
38	1105,35	1105,42	100006.11	8,0435009	8,0435274
39	1134.44	1134.51	100006,44	8,0547814	8.0548094
40	1163,53	1163,61	100006,77	8,0657763	8,0658057
41	1192,61	1192,70	100007,11	8.0764997	8,0765306
42	1221,70	1221,79	100007,46	8,0869646	8,0869970
43	1250,79	1250.88	100007,82	8,0971832	8,0972172
44	1279,87	1279.98	100008,19	8,1071669	8,1072025
45	1308.96	1309.07	100008,57	8,1169262	8,1169634
46	1338,05	1338,17	100008,96	8,1264710	8,1265099
47	1367,13	1367,26	100009.35	8.1358104	8,1358510
48	1396,22	1396,35	100009.75	8.1449532	8,1449956
49	1425.30	1425,45	100010,16	8.1539075	8,1539516
50	1454,39	1454,54	100010,58	8,1626808	8.1627267
51	1483,48	1483,64	100011,01	8,1712804	8,1713282
52	1512,56	1512,73	100011,45	8,1797129	8,1797626
53	1541,65	1541,83	100011,89	8,1879848	8,1880364
54	1570,73	1570,93	100012.34	8,1961020	8,1961556
55	1599,82	1600,02	100012,80	8,2040703	8,2041259
56	1628,90	1629,12	100013,27	8.2118949	8,2119526
57	1657,99	1658,21	100013,75	8.2195811	8,2196408
58	1687,07	1687,31	100014,24	8,2271335	8,2271953
59	1716,16	1716,41	100014,73	8,2345568	8,2346208
60	1745,24	1745,51	100015,23	8,2418553	8,2419215

89 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
30	99996,19	11458865,0	11459301,4	9.9999835	12,0591416
29	99995,93	11089205,1	11089656,0	9.9999823	12,0449004
28	99995,66	10742648,4	10743113,8	9.9999812	12,0311114
27	99995,39	10417094,5	10417574,5	9.9999800	12,0177466
26	99995,11	10110690,2	10111184,8	9.9999788	12,0047808
25	99994,82	9821794,3	9822303,3	9.9999775	11,9921908
24	99994,52	9548947,5	9549471,1	9.9999762	11,9799555
23	99994,21	9290848,7	9291386,9	9.9999748	11,9680554
22	99993,89	9046333,6	9046886,3	9.9999735	11,9564726
21	99993,56	8814357,2	8814924,4	9.9999721	11,9451906
20	99993,23	8593979,1	8594560,9	9.9999706	11,9341943
19	99992,89	8384350,7	8384947,0	9.9999691	11,9234694
18	99992,54	8184704,1	8185315,0	9.9999676	11,9130030
17	99992,18	7994343,0	7994968,4	9.9999660	11,9027828
16	99991,81	7812634,2	7813274,2	9.9999644	11,8927975
15	99991,43	7639000,9	7639655,4	9.9999628	11,8830366
14	99991,04	7472916,5	7473585,6	9.9999611	11,8734901
13	99990,65	7313899,1	7314582,7	9.9999594	11,8641490
12	99990,25	7161507,0	7162205,2	9.9999577	11,8550044
11	99989,84	7015334,6	7016047,4	9.9999559	11,8460484
10	99989,42	6875008,7	6875736,0	9.9999541	11,8372733
9	99988,99	6740185,4	6740927,2	9.9999522	11,8286718
8	99988,55	6610547,3	6611303,6	9.9999503	11,8202374
7	99988,11	6485800,8	6486571,6	9.9999484	11,8119636
6	99987,66	6365674,1	6366459,5	9.9999464	11,8038444
5	99987,20	6249915,4	6250715,3	9.9999444	11,7958741
4	99986,73	6138290,5	6139105,0	9.9999424	11,7880474
3	99986,25	6030582,0	6031411,0	9.9999403	11,7803592
2	99985,76	5926587,2	5927430,8	9.9999382	11,7728047
1	99985,27	5826117,4	5826975,5	9.9999360	11,7653792
0	99984,77	5728996,2	5729868,9	9.9999338	11,7580785

1 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
0	1745,24	1745,51	100015.23	8.2418553	8,2419215
1	1774,32	1774,60	100015.74	8.2490332	8,2491015
2	1803,41	1803.70	100016.26	8.2560943	8,2561649
3	1832.49	1832,80	100016.79	8.2630424	8,2631153
4	1861,58	1861,90	100017.33	8.2698810	8,2699563
5	1890,66	1891,00	100017.88	8.2766136	8,2766912
6	1919.74	1920,10	100018.43	8.2832434	8,2833234
7	1948,83	1949,20	100018.99	8.2897734	8,2898559
8	1977.91	1978,30	100019.56	8.2962067	8,2962917
9	2006,99	2007,40	100020.14	8,3025460	8,3026335
10	2036,08	2036,50	100020.73	8.3087941	8,3088842
11	2065,16	2065,60	100021.33	8.3149536	8,3150462
12	2094,24	2094,70	100021.94	8.3210269	8,3211221
13	2123,32	2123,80	100022.55	8.3270163	8,3271143
14	2152,41	2152,91	100023.17	8.3329243	8,3330249
15	2181.49	2182,01	100023.80	8.3387529	8,3388563
16	2210,57	2211,11	100024.44	8.3445043	8,3446105
17	2239,65	2240,21	100025.09	8.3501805	8,3502895
18	2268,73	2269,32	100025.75	8.3557835	8,3558953
19	2297,81	2298,42	100026.41	8.3613150	8,3614297
20	2326,90	2327,53	100027.08	8.3667769	8,3668945
21	2355,98	2356,63	100027.76	8.3721710	8,3722915
22	2385,06	2385,74	100028.45	8.3774988	8,3776223
23	2414,14	2414,84	100029.15	8.3827620	8,3828886
24	2443,22	2443,95	100029.86	8.3879622	8,3880918
25	2472,30	2473,05	100030.58	8.3931008	8.3932336
26	2501,38	2502,16	100031.30	8.3981793	8.3983152
27	2530,46	2531,27	100032.03	8.4031990	8,4033381
28	2559,54	2560,38	100032.77	8.4081614	8,4083037
29	2588,62	2589,48	100033.52	8.4130676	8,4132132
30	2617,69	2618,59	100034.28	8.4179190	8,4180679

88 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
60	99984,77	5728996,16	5729868,85	9.9999338	11,7580785
59	99984,26	5635058,96	5635946,19	9.9999316	11,7508985
58	99983,74	5544151,67	5545053,45	9.9999294	11,7438351
57	99983,21	5456130,03	5457046,35	9.9999271	11,7368847
56	99982,67	5370858,75	5371789,62	9.9999247	11,7300437
55	99982,12	5288210,91	5289156,37	9.9999224	11,7233088
54	99981,57	5208067,26	5209027,22	9.9999200	11,7166766
53	99981,01	5130315,66	5131290,17	9.9999175	12,7101441
52	99980,44	5054850,59	5055839,65	9.9999150	12,7037083
51	99979,86	4981572,64	4982576,23	9.9999125	12,6973665
50	99979,27	4910388,06	4911406,20	9.9999100	11,6911158
49	99978,67	4841208,41	4842241,10	9.9999074	11,6849538
48	99978,06	4773950,14	4774997,38	9.9999047	11,6788779
47	99977,45	4708534,30	4709596,08	9.9999021	11,6728857
46	99976,83	4644886,20	4645962,53	9.9998994	11,6669751
45	99976,20	4582935,12	4584025,99	9.9998966	11,6611437
44	99975,56	4522614,07	4523719,49	9.9998939	11,6553895
43	99974,91	4463859,56	4464979,52	9.9998911	11,6497105
42	99974,25	4406611,32	4407745,83	9.9998882	11,6441047
41	99973,59	4350812,16	4351961,22	9.9998853	12,6385703
40	99972,92	4296407,73	4297571,34	9.9998824	11,6331055
39	99972,24	4243346,39	4244524,54	9.9998794	11,6277085
38	99971,55	4191578,99	4192771,68	9.9998764	11,6223777
37	99970,85	4141058,76	4142266,00	9.9998734	11,6171114
36	99970,14	4091741,16	4092962,95	9.9998703	11,6119082
35	99969,43	4043583,75	4044820,09	9.9998672	11,6067664
34	99968,71	3996546,05	3997796,94	9.9998641	11,6016848
33	99967,98	3950589,46	3951854,89	9.9998609	11,5966619
32	99967,24	3905677,11	3906957,09	9.9998577	11,5916963
31	99966,49	3861773,81	3863068,34	9.9998544	11,5867868
30	99965,73	3818845,93	3820155,00	9.9998512	11,5819321

1 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
30	2617,69	2618,59	100034.28	8.4179190	8,4180679
31	2646,77	2647,70	100035.05	8.4227168	8,4228690
32	2675,85	2676,81	100035.82	8.4274621	8,4276176
33	2704,93	2705,92	100036.60	8.4321561	8,4323150
34	2734,01	2735,03	100037.39	8.4367999	8,4369622
35	2763,09	2764,14	100038.19	8.4413944	8,4415603
36	2792,16	2793,25	100039.00	8.4459409	8,4461103
37	2821,24	2822,36	100039.82	8.4504402	8,4506131
38	2850,32	2851,48	100040,65	8.4548934	8,4550699
39	2879,40	2880,59	100041.48	8.4593013	8,4594814
40	2908,47	2909,70	100042,32	8.4636649	8,4638486
41	2937,55	2938,82	100043.17	8.4679850	8,4681725
42	2966,62	2967,93	100044.03	8.4722626	8,4724538
43	2995,70	2997,05	100044.90	8.4764984	8,4766933
44	3024,78	3026,16	100045.78	8.4806932	8,4808920
45	3053,85	3055,28	100046.67	8.4848479	8,4850505
46	3082,93	3084,39	100047.56	8.4889632	8,4891696
47	3112,00	3113,51	100048.46	8.4930398	8,4932502
48	3141,08	3142,63	100049.37	8.4970784	8,4972928
49	3170,15	3171,74	100050,29	8.5010798	8.5012982
50	3199,22	3200,86	100051.22	8.5050447	8.5052671
51	3228,30	3229,98	100052.15	8.5089736	8,5092001
52	3257,37	3259,10	100053.09	8.5128673	8,5130978
53	3286,44	3288,22	100054.05	8.5167264	8.5169610
54	3315,52	3317,34	100055.01	8.5205514	8,5207902
55	3344,59	3346,46	100055.98	8.5243430	8,5245860
56	3373,66	3375,58	100056.96	8.5281017	8,5283490
57	3402,73	340.471	100057.95	8.5318281	8,5320797
58	3431,81	3433,83	100058.94	8.5355228	8,5357787
59	3460,88	3462,95	100059.94	8,5391863	8,5394466
60	3489,95	3492.08	100050.95	8.5428192	8,5430838

88 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
30	99965,73	3818845,93	3820155,00	9.9998512	11,5819321
29	99964,96	3776861,30	3778184,92	9.9998478	11,5771310
28	99964,19	3735789,17	3737127,34	9.9998445	11,5723824
27	99963,41	3695600,11	3696952,82	9.9998411	11,5676850
26	99962,62	3656265,92	3657633,18	9.9998376	11,5630378
25	99961,82	3617759,62	3619141,43	9.9998342	11,5584397
24	99961,01	3580055,33	3581451,68	9.9998306	11,5538897
23	99960,19	3543128,25	3544539,15	9.9998271	11,5493869
22	99959,36	3506954,58	3508380,03	9.9998235	11,5449301
21	99958,53	3471511,50	3472951,50	9.9998199	11,5405186
20	99957,69	3436777,09	3438231,63	9.9998162	11,5361514
19	99956,84	3402730,29	3404199,39	9.9998125	11,5318275
18	99955,98	3369350,89	3370834,53	9.9998088	11,5275462
17	99955,11	3336619,45	3338117,63	9.9998050	11,5233067
16	99954,24	3304517,27	3306030,00	9.9998012	11,5191080
15	99953,36	3273026,37	3274553,65	9.9997974	11,5149495
14	99952,47	3242129,46	3243671,29	9.9997935	11,5108304
13	99951,57	3211809,88	3213366,26	9.9997896	11,5067498
12	99950,66	3182051,60	3183622,52	9.9997856	11,5027072
11	99949,74	3152839,16	3154424,63	9.9997817	11,4987018
10	99948,81	3124157,67	3125757,70	9.9997776	11,4947329
9	99947,88	3095992,80	3097607,37	9.9997736	11,4907999
8	99946,94	3068330,70	3069959,82	9.9997695	11,4869022
7	99945,99	3041158,02	3042801,69	9.9997653	11,4830387
6	99945,03	3014461,80	3016120,10	9.9997612	11,4792098
5	99944,06	2988229,86	2989902,63	9.9997570	11,4754140
4	99943,08	2962449,95	2964137,26	9.9997527	11,4716510
3	99942,09	2937110,55	2938812,41	9.9997484	11,4679203
2	99941,09	2912200,47	2913916,88	9.9997441	11,4642213
1	99940,09	2887708,88	2889439,84	9.9997398	11,4605534
0	99939,08	2863625,33	2865370,83	9.9997354	11,4569162

2 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Ta*
0	3489,95	3492,08	100060,95	8,5428192	8.5430838
1	3519,02	3521,20	100061.97	8.5464218	8,5466909
2	3548,09	3550,33	100063.00	8,5499948	8.5502683
3	3577,16	3579,45	100064.04	8,5535386	8.5538166
4	3606,23	3608,58	100065.09	8,5570536	8.5573362
5	3635,30	3637,71	100066.15	8,5605404	8.5608276
6	3664,37	3666,83	100067.21	8,5639994	8.5642912
7	3693,44	3695,96	100068.28	8,5674310	8.5677275
8	3722,51	3725,09	100069.36	8,5708357	8.5711368
9	3751,58	3754,22	100070.45	8,5742139	8.5745197
10	3780,65	3783,35	100071.55	8,5775660	8.5778766
11	3809,71	3812,48	100072.66	8,5808923	8.5812077
12	3838,78	3841,61	100073.77	8,5841933	8.5845136
13	3867,85	3870,74	100074.89	8,5874694	8.5877945
14	3896,91	3899,88	100076.02	8,5907209	8.5910509
15	3925,98	3929,01	100077.16	8,5939483	8.5942832
16	3955,05	3958,14	100078.31	8,5971517	8.5974917
17	3984,11	3987,28	100079.47	8,6003317	8.6006767
18	4013,18	4016,41	100080.63	8,6034886	8.6038386
19	4042,24	4045,55	100081.80	8,6066226	8.6069777
20	4071,31	4074,69	100082,98	8,6097341	8,6100943
21	4100,37	4103,83	100084.17	8,6128235	8.6131889
22	4129,44	4132,96	100085.37	8.6158910	8.6162616
23	4158,50	4162,10	100086,58	8,6189369	8.6193127
24	4187,57	4191,24	100087.80	8,6219616	8.6223427
25	4216,63	4220,38	100089.02	8,6249653	8.6253518
26	4245,69	4249,52	100090.25	8,6279484	8.6283402
27	4274,75	4278,66	100091.49	8,6309111	8.6313083
28	4303,82	4307,81	100092.74	8,6338537	8.6342563
29	4332,88	4336,95	100094.00	8,6367764	8.6371845
30	4361.94	4366,09	100095.27	8,6396796	8.6400931

87 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
60	99939.08	2863625.33	2865370.83	9.9997354	11,4569162
59	99938.06	2839939.69	2841699.74	9.9997309	11,4533091
58	99937.03	2816642,18	2818416.78	9.9997265	11,4497317
57	99935.99	2793723.33	2795512.48	9.9997220	11,4461834
56	99934.95	2771173.99	2772977.69	9.9997174	11,4426638
55	99933.90	2748985.28	2750803.53	9.9997128	11,4391724
54	99932.84	2727148.61	2728981.41	9.9997082	11,4357088
53	99931.77	2705655.68	2707503.03	9.9997036	11,4322725
52	99930.69	2684498.43	2686360.33	9.9996989	11,4288632
51	99929.60	2653669.04	2665545.49	9.9996942	11,4254803
50	99928,51	2643159.96	2645050.96	9.9996894	11,4221234
49	99927.40	2622963.84	2624869.39	9.9996846	11,4187923
48	99926.29	2603073.58	2604993.68	9.9996798	11,4154864
47	99925.17	2583482.27	2585416.92	9.9996749	11,4122055
46	99924.04	2564183.23	2566132.43	9.9996700	11,4089491
45	99922.90	2545169.96	2547133.71	9.9996650	11,4057168
44	99921.75	2526436.15	2528414.45	9.9996601	11,4025083
43	99920.60	2507975.68	2509968.53	9.9996550	11,3993233
42	99919.44	2489782.62	2491790.02	9.9996500	11,3961614
41	99918,27	2471851.19	2473873.14	9.9996449	11,3930223
40	99917.09	2454175.78	2456212,28	9.9996398	11,3899057
39	99915.90	2436750.95	2438802.00	9.9996346	11,3868111
38	99914.70	2419571.40	2421637.00	9.9996294	11,3837384
37	99913.49	2402631.99	2404712.14	9.9996242	11,3806873
36	99912.28	2385927.72	2388022.42	9.9996189	11,3776573
35	99911.06	2369453.72	2371562.97	9.9996136	11,3746482
34	99909.83	2353205.25	2355329.05	9.9996082	11,3716598
33	99908.59	2337177.72	2339316.07	9.9996028	11,3686917
32	99907.34	2321366.65	2323519.55	9.9995974	11,3657437
31	99906.08	2305767.67	2307935.13	9.9995919	11,3628155
30	99904.82	2290376.55	2292558.56	9.9995865	11,3599059

2 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Ta*
30	4361,94	4366,09	100095.27	8,6396796	8.6400931
31	4391,00	4395,24	100096.55	8,6425634	8.6429825
32	4420,06	4424,38	100097.83	8,6454282	8.6458528
33	4449,12	4453.53	100099.12	8,6482742	8.6487044
34	4478,18	4482,68	100100.42	8,6511016	8.6515375
35	4507,24	4511,82	100101.73	8,6539107	8.6543522
36	4536,30	4540,97	100103.05	8,6567017	8.6571490
37	4565,36	4570,12	100104.38	8,6594748	8.6599279
38	4594,42	4599,27	100105.71	8,6622303	8.6626891
39	4623,47	4628,42	100107.05	8,6649684	8.6654331
40	4652,53	4657,57	100108.40	8,6676893	8.6681598
41	4681,59	4686,73	100109.76	8,6703932	8.6708697
42	4710,64	4715,88	100111.13	8,6730804	8.6735628
43	4739,70	4745,03	100112.51	8,6757510	8.6762393
44	4768,76	4774,19	100113.90	8,6784052	8.6788996
45	4797,81	4803,34	100115.30	8.6810433	8.6815437
46	4826,87	4832,50	100116.70	8,6836654	8.6841719
47	4855,92	4861,66	100118.11	8,6862718	8.6867844
48	4884,98	4890,82	100119·53	8,6888625	8.6893813
49	4914,03	4919,97	100120.96	8,6914379	8.6919629
50	4943,08	4949,13	100122.40	8,6939980	8.6945292
51	4972,14	4978,29	100123.85	8,6965431	8.6970806
52	5001,19	5007,46	100125.30	8,6990734	8.6996173
53	5030,24	5036,62	100126.76	8,7015889	8.7021390
54	5059.29	5065,78	100128.23	8,7040899	8.7046465
55	5088,35	5094,95	100129.71	8,7065766	8.7071395
56	5117,40	5124,11	100131.20	8,7090490	8.7096185
57	5146,45	5153,28	100132.70	8,7115075	8.7120834
58	5175,50	5182,44	100134.20	8,7139520	8.7145345
59	5204,55	5211,61	100135.71	8,7163829	8.7169719
60	5233,60	5240,78	100137.23	8,7188002	8.7193958

87 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
30	99904,82	2290376,55	2292558,56	9,9995865	11,3599069
29	99903,55	2275189,16	2277385,72	9,9995809	11,3570175
28	99902,27	2260201,48	2262412,59	9,9995753	11,3541472
27	99900,98	2245409,59	2247635,25	9,9995697	11,3512956
26	99899,68	2230809,67	2233049,89	9,9995641	11,3484625
25	99898,37	2216398,02	2218652,78	9,9995584	11,3456478
24	99897,05	2202171,00	2204440,32	9,9995527	11,3428510
23	99895,73	2188125,10	2190408,97	9,9995469	11,3400721
22	99894,40	2174256,87	2176555,29	9,9995411	11,3373109
21	99893,06	2160562,96	2162875,93	9,9995353	11,3345669
20	99891,71	2147040,10	2149367,63	9,9995297	11,3318402
19	99890,35	2133685,11	2136027,19	9,9995236	11,3291303
18	99883,98	2120494,88	2122851,51	9,9995176	11,3264372
17	99887,61	2107466,37	2109837,55	9,9995116	11,3237607
16	99886,23	2094596,63	2096982,36	9,9995056	11,3211004
15	99884,84	2081832,76	2084283,05	9,9994996	11,3184563
14	99883.44	2069321,96	2071736,80	9,9994935	11,3158281
13	99882,03	2056911,47	2059340,86	9,9994874	11,3132156
12	99880,61	2044648,61	2047092,55	9,9994812	11,3106187
11	99879,18	2032530,75	2034989,25	9,9994750	11,3080371
10	99877,75	2020555,35	2023028,40	9,9994688	11,3054708
9	99876,31	2008719.89	2011207,50	9.9994625	11,3029194
8	99874,86	1997021,95	1999524,11	9,9994562	11,3003828
7	99873,40	1985459,12	1987975,84	9,9994498	11,2978610
6	99871,93	1974029,10	1976560,36	9,9994435	11,2953535
5	99870,45	1962729,59	1965275,41	9,9994370	11,2928605
4	99868,97	1951558,37	1954118,74	9,9994306	11,2903815
3	99867,48	1940513,27	1943088,20	9,9994241	11,2879166
2	99865,98	1929592,17	1932181,65	9,9994176	11,2854655
1	99864,47	1918792,98	1921397,01	9,9994110	11,2830281
0	99862,95	1908113,67	1910732,26	9,9994044	11,2806042

3 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
0	5233.60	5240,78	100137.23	8.7188002	8.7193958
1	5262,64	5269,95	100138.76	8.7212040	8.7218063
2	5291,69	5299,12	100140.30	8.7235946	8.7242035
3	5320,74	5328,29	100141.85	8.7259721	8.7265877
4	5349,79	5357,46	100143.41	8.7283366	8.7289589
5	5378,83	5386,63	100144.98	8.7306882	8.7313174
6	5407,88	5415,81	100146.55	8.7330272	8.7336631
7	5436,93	5444,98	100148.13	8.7353535	8.7359964
8	5465,97	5474,16	100149.72	8.7376675	8.7383172
9	5495,02	5503,33	100151.32	8.7399691	8.7406258
10	5524,06	5532,51	100152.93	8.7422586	8.7429222
11	5553,11	5561,69	100154.55	8.7445360	8.7452067
12	5582,15	5590,87	100156.17	8.7468015	8.7474792
13	5611,19	5620,05	100157.80	8.7490553	8.7497400
14	5640,24	5649,23	100159.44	8.7512973	8.7519892
15	5669,28	5678,41	100161.09	8.7535278	8.7542269
16	5698,32	5707,59	100162.75	8.7557469	8.7564531
17	5727,36	5736,78	100164.42	8.7579546	8.7586681
18	5756,40	5765,96	100166.10	8.7601512	8.7608719
19	5785,44	5795,15	100167.78	8.7623366	8.7630647
20	5814,48	5824,34	100169.47	8.7645111	8.7652465
21	5843,52	5853,52	100171.17	8.7666747	8.7674175
22	5872,56	5882,71	100172.88	8.7688275	8.7695777
23	5901,60	5911,90	100174.60	8.7709697	8.7717274
24	5930,64	5941,09	100176.33	8.7731014	8.7738665
25	5959,67	5970,29	100178.07	8.7752226	8.7759952
26	5988,71	5999,48	100179.81	8.7773334	8.7781136
27	6017,75	6028,67	100181.56	8.7794340	8.7802218
28	6046,78	6057,87	100183.32	8.7815244	8.7823199
29	6075,82	6087,06	100185.09	8.7836048	8.7844079
30	6104,85	6116,26	100186.87	8.7856753	8.7864861

86 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tang*
60	99862,95	1908113.67	1910732,26	9.9994044	11,2806042
59	99861,42	1897552,26	1900185.40	9.9993978	11,2781937
58	99859.89	1887106,80	1889754.50	9.9993911	11,2757965
57	99858.35	1876775.39	1879437.65	9.9993844	11.2734123
56	99856,80	1866556.18	1869232.99	9.9993776	11,2710411
55	99855.24	1856447.34	1859138.71	9.9993708	11,2686826
54	99853.67	1846447.09	1849153.01	9.9993640	11,2663369
53	99852,09	1836553.70	1839274.17	9.9993572	11,2640036
52	99850.50	1826765.44	1829500.48	9.9993503	11,2616828
51	99848.91	1817080.67	1819830.26	9.9993433	11,2593742
50	99847.31	1807497.74	1810261,88	9.9993364	11,2570778
49	99845.70	1798015,05	1800793.75	9.9993293	11,2547933
48	99844.08	1788631,04	1791424,29	9.9993223	11,2525208
47	99842.45	1779344.17	1782151,98	9.9993152	11,2502600
46	99840,81	1770152,94	1772975.31	9.9993081	11,2480108
45	99839.16	1761055.88	1763892.80	9.9993009	11,2457731
44	99837.51	1752051,55	1754903.03	9.9992938	11.2435469
43	99835.85	1743138.54	1746004.57	9.9992865	11,2413319
42	99834.18	1734315.46	1737196,05	9.9992793	11,2391281
41	99832,50	1725580,95	1728476.10	9.9992720	11,2369353
40	99830,81	1716933.69	1719843.40	9.9992646	11,2347535
39	99829.11	1708372.38	1711296,64	9.9992572	11,2325825
38	99827,41	1699895.74	1702834.56	9.9992498	11,2304223
37	99825.70	1691502,51	1694455.89	9.9992424	11,2282726
36	99823.98	1683191.48	1686159.41	9.9992349	11,2261335
35	99822,25	1674961.44	1677943.92	9.9992274	11,2240048
34	99820,51	1666811.20	1669808,25	9.9992198	11,2218864
33	99818.75	1658739.62	1661751,22	9.9992122	11,2197782
32	99817,01	1650745.55	1653771,71	9.9992046	11,2176801
31	99815,25	1642827,89	1645868,61	9.9991969	11,2155921
30	99813,48	1634985,55	1638040,82	9.9991892	11,2135139

3 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Ta*
30	6104,85	6116,26	100186.87	8.7856753	8.786486
31	6133,89	6145,46	100188.66	8.7877359	8.788554
32	6162,92	6174,66	100190.46	8.7897867	8.790613
33	6191,96	6203,86	100192.26	8.7918278	8.792662
34	6220,99	6233,06	100194.07	8.7938594	8.794701
35	6250,02	6262,26	100195.89	8.7958814	8.796731
36	6279,05	6291,47	100197.72	8.7978941	8.798751
37	6308,08	6320,67	100199.56	8.7998974	8.800763
38	6337,11	6349,88	100201.41	8.8018915	8.802765
39	6366,14	6379,08	100203.26	8.8038764	8.804758
40	6395,17	6408,29	100205.12	8.8058523	8.806742
41	6424,20	6437,50	100206.99	8.8078192	8.808717
42	6453,23	6466,71	100208.87	8.8097772	8.8106834
43	6482,26	6495,92	100210.76	8.8117264	8.8126407
44	6511,29	6525,13	100212.66	8.8136668	8.8145894
45	6540,31	6554,35	100214.57	8.8155985	8.8165294
46	6569,34	6583,56	100216.49	8.8175217	8.8184608
47	6598,36	6612,78	100218.41	8.8194363	8.8203838
48	6627,39	6641,99	100220.34	8.8213425	8.8222984
49	6656,41	6671,21	100222.28	8.8232404	8.8242046
50	6685,44	6700,43	100224.23	8.8251299	8.8261026
51	6714,46	6729,65	100226.19	8.8270112	8.8279924
52	6743,48	6758,87	100228.16	8.8288844	8.8298741
53	6772,51	6788,09	100230.13	8.8307495	8.8317478
54	6801,53	6817,32	100232.11	8.8326066	8.8336134
55	6830,55	6846,54	100234.10	8.8344557	8.8354712
56	6859,57	6875,77	100236.10	8.8362969	8.8373211
57	6888,59	6904,99	100238.11	8.8381304	8.8391633
58	6917,61	6934,22	100240.13	8.8399561	8.8409977
59	6946,63	6963,45	100242.16	8.8417741	8.8428245
60	6975,65	6992,68	100244.19	8.8435845	8.8446437

86 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
30	99813,48	1634985,55	1638040,82	9,9991892	11,2135139
29	99811,70	1627217,44	1630287,28	9,9991815	11,2114456
28	99809,91	1619522,53	1622606,93	9,9991737	11,2093870
27	99808,11	1611899,79	1614998,74	9,9991659	11,2073380
26	99806,30	1604348,19	1607461,70	9,9991580	11,2052986
25	99804,49	1596866,74	1599994,81	9,9991501	11,2032687
24	99802,67	1589454,48	1592597,11	9,9991422	11,2012481
23	99800,84	1582110,45	1585267,64	9,9991342	11,1992368
22	99799,00	1574833,71	1578005,45	9,9991262	11,1972347
21	99797,15	1567623,33	1570809,63	9,9991182	11,1952417
20	99795,29	1560478,41	1563679,27	9,9991101	11,1932578
19	99793,43	1553398,06	1556613,48	9,9991020	11,1912828
18	99791,56	1546381,41	1549611,39	9,9990938	11,1893166
17	99789,68	1539427,60	1542672,15	9,9990856	11,1873593
16	99787,79	1532535,80	1535794,90	9.9990774	11,1854106
15	99785,89	1525705,17	1528978,83	9,9990691	11,1834706
14	99783,98	1518934,90	1522223,12	9,9990608	11,1815392
13	99782,06	1512224,20	1515526,98	9,9990525	11,1796162
12	99780,14	1505572,27	1508889,61	9,9990441	11,1777016
11	99778,21	1498978,36	1502310,26	9,9990357	11,1757954
10	99776,27	1492441,70	1495788,16	9,9990273	11,1738974
9	99774,32	1485961,55	1489322,58	9,9990188	11,1720076
8	99772,36	1479537,18	1482912,77	9,9990103	11,1701259
7	99770,39	1473167,87	1476558.02	9,9990017	11,1682522
6	99768,42	1466852,92	1470257,63	9,9989931	11,1663866
5	99766,44	1460591,63	1464010,90	9,9989845	11,1645288
4	99764,45	1454383,32	1457817,15	9,9989758	11,1626789
3	99762,45	1448227,32	1451676,71	9,9989671	11,1608367
2	99760,44	1442122,97	1445585,92	9,9989584	11,1590023
1	99758.42	1436069,61	1439547,13	9,9989496	11,1571755
0	99756,40	1430066,63	1433558,70	9,9989408	11,1553563

4 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
0	6975.65	6992,68	100244.19	8.8435845	8.8446437
1	7004,66	7021,91	100246.23	8.8453874	8.8464554
2	7033.68	7051,15	100248.28	8.8471827	8.8482597
3	7062,70	7080,38	100250.34	8.8489707	8.8500566
4	7091,71	7109,61	100252.41	8.8507512	8.8518461
5	7120,73	7138,85	100254.49	8.8525245	8.8536283
6	7149,74	7168,09	100256,58	8.8542905	8.8554034
7	7178,76	7197,33	100258.68	8.8560493	8.8571713
8	7207,77	7226,57	100260.78	8.8578010	8.8589321
9	7236,78	7255,81	100262.89	8.8595457	8.8606859
10	7265,80	7285,05	100265.01	8.8612833	8.8624327
11	7294,81	7314,30	100267.14	8.8630139	8.8641725
12	7323,82	7343,54	100269.28	8.8647376	8.8659055
13	7352,83	7372,79	100271,43	8.8664545	8.8676317
14	7381,84	7402,03	100273.58	8.8681646	8.8693511
15	7410,85	7431,28	100275.74	8.8698680	8.8710638
16	7439,86	7460,53	100277.91	8.8715646	8.8727699
17	7468.87	7489,79	100280,09	8.8732546	8.8744694
18	7497.87	7519,04	100282.28	8.8749381	8.8761623
19	7526,88	7548,29	100284.48	8.8766150	8.8778487
20	7555,89	7577,55	100286,68	8.8782854	8.8795286
21	7584.89	7606.80	100288.89	8.8799493	8.8812022
22	7613,90	7636,06	100291.11	8.8816069	8.8828694
23	7642,90	7665,32	100293.34	8.8832581	8.8845303
24	7671,90	7694,58	100295.58	8.8849031	8.8861850
25	7700,91	7723,84	100297.83	8.8865418	8.8878334
26	7729,91	7753,11	100300,09	8.8881743	8.8894757
27	7758,91	7782,37	100302,36	8.8898007	8.8911119
28	7787,91	7811,64	100304.64	8.8914209	8.8927420
29	7816,91	7840,90	100306.93	8.8930351	8.8943660
30	7845,91	7870,17	100309.22	8.8946433	8.8959842

85 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
60	99756,40	1430066,63	1433558,70	9,9989408	11,1553563
59	99754,37	1424113,37	1427620,01	9,9989319	11,1535446
58	99752,33	1418209,24	1421730,45	9,9989230	11,1517403
57	99750,28	1412353,63	1415889.39	9,9989141	11,1499434
56	99748,22	1406545,93	1410096,25	9,9989052	11,1481539
55	99746.15	1400785,56	1404350,45	9,9988962	11,1463717
54	99744,07	1395071,94	1398651,39	9,9988871	11,1445966
53	99741,99	1389404,51	1392998,52	9,9988780	11,1428287
52	99739,90	1383782,70	1387391,28	9,9988689	11,1410679
51	99737,80	1378205,98	1381829,12	9,9988598	11,1393141
50	99735,69	1372673,79	1376311,49	9,9988506	11,1375673
49	99733,57	1367185,60	1370837,87	9,9988414	11,1358275
48	99731,44	1361740,89	1365407,72	9,9988321	11,1340945
47	99729,31	1356339,15	1360020,54	9,9988228	11,1323683
46	99727,17	1350979.86	1354675,82	9,9988135	11,1306489
45	99725,02	1345662,53	1349373,06	9.9988041	11,1289362
44	99722,86	1340386,67	1344111,76	9,9987947	11,1272301
43	99720,69	1335151,79	1338891,44	9,9987853	11,1255306
42	99718,51	1329957,41	1333711,63	9,9987758	11,1238377
41	99716.32	1324803,07	1328571,86	9,9987663	11,1221513
40	99714,13	1319688,30	1323471,65	9,9987567	11,1204714
39	99711,93	1314612,66	1318410,57	9,9987471	11,1187978
38	99709,72	1309575,68	1313388,16	9,9987375	11,1171306
37	99707,50	1304576,93	1308403,98	9,9987278	11,1154697
36	99705,27	1299615,98	1303457,60	9,9987181	11,1138150
35	99703,03	1294692,40	1298548,58	9,9987084	11,1121666
34	99700,79	1289805,77	1293676,51	9,9986986	11,1105243
33	99698,54	1284955.66	1288840,97	9,9986888	11,1088881
32	99696,28	1280141.68	1284041,55	9,9986790	11,1072580
31	99694,01	1275363,41	1279277,86	9,9986691	11,1056340
30	99691,73	1270620,47	1274549,48	9,9986591	11,1040158

4 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tan
30	7845.91	7870,17	100309.22	8.8946433	8.8959842
31	7874.91	7899.44	100311.52	8.8962455	8.8975963
32	7903,91	7928,71	100313.83	8.8978418	8.8992026
33	7932,90	7957.98	100316.15	8.8994322	8.9008030
34	7961.90	7987,26	100318.48	8.9010168	8.9023977
35	7990,90	8016,53	100320.81	8.9025955	8.9039866
36	8019,89	8045,81	100323.15	8.9041685	8.9055697
37	8048,89	8075,09	100325.50	8.9057358	8.9071472
38	8077,88	8104,37	100327.86	8.9072975	8.9087190
39	8106.87	8133,65	100330.23	8.9088535	8.9102853
40	8135,87	8162,93	100332.61	8.9104039	8.9118460
41	8164,86	8192,21	100335.00	8.9119487	8.9134012
42	8193.85	8221,50	100337.40	8.9134881	8.9149509
43	8222,84	8250,78	100339.80	8.9150219	8.9164952
44	8251,83	8280,07	100342.21	8.9165504	8.9180340
45	8280,82	8309,36	100344.63	8.9180734	8.9195675
46	8309,81	8338,65	100347.06	8.9195911	8.9210957
47	8338,80	8367,94	100349.50	8.9211034	8.9226186
48	8367,78	8397,23	100351.95	8.9226105	8.9241363
49	8396,77	8426,53	100354.41	8.9241123	8.9256487
50	8425,76	8455,83	100356.87	8.9256089	8.9271560
51	8454,74	8485,12	100359.34	8.9271003	8.9286581
52	8483,73	8514,42	100361,82	8.9285866	8.9301552
53	8512,71	8543,72	100364.31	8.9300678	8.9316471
54	8541,69	8573,02	100366.81	8.9315439	8.9331340
55	8570,67	8602,33	100369.32	8.9330150	8.9346160
56	8599,66	8631,63	100371,84	8.9344811	8.9360929
57	8628,64	8660,94	100374.36	8.9359422	8.9375650
58	8657,62	8690,25	100376.89	8.9373983	8.9390321
59	8686,60	8719,56	100379.43	8.9388496	8.9404944
60	8715,57	8748,87	100381.98	8.9402960	8.9419518

85 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
30	99691.73	1270620,47	1274549,48	9.9986591	11,1040158
29	99689.44	1265912,46	1269856,04	9.9986492	11,1024037
28	99687,15	1261239,00	1265197,15	9.9986392	11,1007974
27	99684,85	1256599,71	1260572,42	9.9986292	11,0991970
26	99682,54	1251994,20	1255981,48	9.9986191	11,0976023
25	99680,22	1247422,12	1251423,97	9.9986090	11,0960134
24	99677,89	1242883,10	1246899,52	9.9985988	11,0944303
23	99675,55	1238376,79	1242407,77	9.9985886	11,0928528
22	99673,20	1233902,82	1237948,37	9.9985784	11,0912810
21	99670,85	1229460,85	1233520,97	9.9985682	11,0897147
20	99658,49	1225050,55	1229125,23	9.9985579	11,0881540
19	99666,12	1220671,56	1224760,82	9.9985475	11,0865988
18	99663,74	1216323,56	1220427,39	9.9985372	11,0850491
17	99661,35	1212006,22	1216124,62	9.9985268	11,0835048
16	99658,95	1207719,22	1211852,18	9.9985163	11,0819660
15	99656,55	1203462,23	1207609,76	9.9985058	11,0804325
14	99654,14	1199234,95	1203397,05	9.9984953	11,0789043
13	99651,72	1195037,05	1199213,72	9.9984848	11,0773814
12	99649,29	1190868,24	1195059,48	9.9984742	11,0758637
11	99646,85	1186728,21	1190934,02	9.9984636	11,0743513
10	99644,40	1182616,67	1186837,05	9.9984529	11,0728440
9	99641,94	1178533,31	1182768,27	9.9984422	11,0713419
8	99639,48	1174477,86	1178727,39	9.9984315	11,0698448
7	99637,01	1170450,03	1174714,12	9.9984207	11,0683529
6	99634,53	1166449,53	1170728,19	9.9984099	11,0668660
5	99632,04	1162476,08	1166769,32	9.9983990	11,0653840
4	99629,54	1158529,42	1162837,23	9.9983881	11,0639071
3	99627,03	1154609,27	1158931,65	9.9983772	11,0624350
2	99624,52	1150715,36	1155052,31	9.9983663	11,0609670
1	99622,00	1146847,43	1151198,96	9.9983553	11,0595056
0	99619,47	1143005,23	1147371,32	9.9983442	11,0580482

5 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tan
0	8715,57	8748,87	100381.98	8,9402960	8.9419518
1	8744.55	8778,18	100384.54	8,9417376	8.9434044
2	8773.53	8807,49	100387.11	8,9431743	8.9448523
3	8802,51	8836,81	100389.69	8,9446063	8.9462954
4	8831,48	8866,12	100392.28	8,9460335	8.9477338
5	8860,46	8895,44	100394.87	8,9474561	8.9491676
6	8889.43	8924,76	100397.47	8,9488739	8.9505967
7	8918,40	8954,08	100400,08	8,9502871	8,9520211
8	8947,38	8983,41	100402.70	8,9516957	8.9534410
9	8976,35	9012,73	100405.33	8.9530996	8.9548664
10	9005,32	9042,06	100407.97	8,9544991	8.9562672
11	9034,29	9071,38	100410.61	8,9558940	8.9576735
12	9063,26	9100,71	100413.26	8,9572843	8.9590754
13	9092,23	9130,04	100415.92	8,9586703	8.9604728
14	9121,19	9159,38	100418.59	8,9600517	8.9618659
15	9150.16	9188,71	100421.27	8,9614288	8.9632545
16	9179,13	9218,04	100423.96	8,9628014	8.9646386
17	9208,09	9247,38	100426,66	8,9641697	8.9660188
18	9237,06	9276,72	100429.37	8,9655337	8.9673944
19	9266,02	9306,06	100432,08	8,9668934	8.9687658
20	9294,99	9335,40	100434.80	8,9682487	8.9701330
21	9323,95	9364,74	100437.53	8,9695999	8.9714959
22	9352,91	9394,09	100440.27	8,9709468	8.9728547
23	9381,87	9423,44	100443.02	8,9722895	8.9742092
24	9410,83	9452,78	100445.78	8,9736280	8.9755597
25	9439,79	9482,13	100448.55	8,9749624	8.9769060
26	9468,75	9511,48	100451.33	8,9762926	8.9782483
27	9497,71	9540,84	100454.11	8,9776188	8.9795865
28	9526,66	9570,19	100456.90	8,9789408	8.9809206
29	9555,62	9599,55	100459.70	8,9802589	8.9822507
30	9584,58	9628,90	100462.51	8,9815729	8.9835769

84 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
60	99619,47	1143005,23	1147371,32	9.9983442	11,0580482
59	99616,93	1139188,49	1143569,16	9.9983332	11,0565956
58	99614,38	1135396,96	1139792,20	9.9983220	11,0551477
57	99611,82	1131630,40	1136040,21	9.9983109	11,0537046
56	99609,26	1127888,55	1132312,93	9.9982997	11,0522662
55	99606,69	1124171,17	1128610,13	9.9982885	11,0508324
54	99604,11	1120478,03	1124931,56	9.9982772	11,0494033
53	99601,52	1116808,88	1121276,99	9.9982660	11,0479789
52	99598,92	1113163,50	1117646,17	9.9982546	11,0465590
51	99596,31	1109541,64	1114038,00	9.9982433	11,0451436
50	99593,69	1105943,10	1110454,92	9.9982318	11,0437328
49	99591,07	1102367,63	1106894,03	9.9982204	11,0423265
48	99588,44	1098815,01	1103355,99	9.9982089	11,0409246
47	99585,80	1095285,04	1099840,59	9.9981974	11,0395272
46	99583,15	1091777,49	1096347,61	9.9981859	11,0381341
45	99580,49	1088292,14	1092876,84	9.9981743	11,0367455
44	99577,82	1084828,80	1089428,07	9.9981629	11,0353612
43	99575,15	1081387,24	1086001,09	9.9981510	11,0339812
42	99572,47	1077967,27	1082595,69	9.9981393	11,0326056
41	99569,78	1074568,68	1079211,68	9.9981275	11,0312342
40	99567,08	1071191,26	1075848,84	9.9981158	11,0298670
39	99564.37	1067834,84	1072506,99	9.9981040	11,0285041
38	99561,65	1064499,19	1069185,92	9.9980921	11,0271453
37	99558,92	1061184,14	1065885,45	9.9980802	11,0257908
36	99556,19	1057889,50	1062605,38	9.9980683	11,0244403
35	99553.45	1054615,07	1059345,53	9.9980563	11,0230940
34	99550,70	1051360,67	1056105,70	9.9980443	11,0217517
33	99547.94	1048126,11	1052885,72	9.9980323	11,0204135
32	99545,17	1044911,22	1049685,41	9.9980202	11,0190794
31	99542,40	1041715,81	1046504,58	9.9980081	11,0177493
30	99539,62	1038539,71	1043343,05	9.9979960	11,0164231

5 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tan
30	9584,58	9628,90	100462,51	8,9815729	8.9835769
31	9613,53	9658,26	100465.33	8,9828829	8.9848991
32	9642,48	9687,63	100468.16	8,9841889	8.9862173
33	9671,44	9716,99	100470.99	8,9854910	8.9875317
34	9700,39	9746,35	100473.83	8,9867891	8.9888421
35	9729,34	9775,72	100476.68	8,9880834	8.9901487
36	9758,29	9805,09	100479.54	8,9893737	8.9914514
37	9787,24	9834,46	100482,41	8,9906602	8.9927503
38	9816,19	9863,83	100485,29	8,9919429	8.9940454
39	9845,14	9893,20	100488.18	8,9932217	8.9953367
40	9874,08	9922,57	100491.08	8,9944968	8.9966243
41	9903,03	9951,95	100493.99	8,9957681	8.9979081
42	9931,97	9981,33	100496.90	8,9970356	8.9991883
43	9960,92	10010,71	100499.82	8,9982994	9.0004647
44	9989,86	10040,09	100502,75	8,9995595	9.0017375
45	10018,81	10069,47	100505.69	9,0008160	9.0030066
46	10047,75	10098,85	100508 64	9,0020687	9.0042721
47	10076,69	10128,24	100511.60	9,0033179	9.0055340
48	10105,63	10157,63	100514.57	9,0045634	9.0067924
49	10134,57	10187,02	100517.54	9,0058053	9.0080471
50	10163,51	10216,41	100520.52	9,0070436	9.0092984
51	10192.45	10245,80	100523.51	9,0082784	9.0105461
52	10221,38	10275,20	100526.51	9,0095096	9.0117903
53	10250,32	10304,60	100529.52	9,0107374	9.0130310
54	10279.25	10334,00	100532.54	9,0119616	9.0142682
55	10308,19	10363,40	100535.57	9.0131823	9.0155021
56	10337,12	10392,80	100538.60	9,0143996	9.0167325
57	10366,05	10422,20	100541.64	9,0156135	9.0179594
58	10394,99	10451,60	100544.69	9,0168239	9.0191831
59	10423,92	10481,01	100547.75	9,0180309	9.0204033
60	10452,85	10510,42	100550.82	9,0192346	9.0216202

84 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin	Log. Targ
30	99539,62	1038539,71	1043343,05	9.9979960	11,0164231
29	99536,83	1035382,74	1040200,66	9.9979838	11,0151009
28	99534,03	1032244,73	1037077,23	9.9979716	11,0137827
27	99531,22	1029125,51	1033972,59	9.9979593	11,0124683
26	99528,40	1026024,90	1030886,56	9.9979470	11,0111579
25	99525,57	1022942,76	1027818,99	9.9979347	11,0098513
24	99522,74	1019878,90	1024769,71	9.9979223	11,0085486
23	99519,90	1016833,16	1021738,55	9.9979099	11,0072497
22	99517,05	1013805,39	1018725,36	9.9978975	11,0059546
21	99514,19	1010795,42	1015729,98	9.9978850	11,0046633
20	99511,32	1007803,11	1012752,24	9.9978725	11,0033757
19	99508,44	1004828,28	1009792,00	9.9978599	11,0020916
18	99505,55	1001870,80	1006849,09	9.9978473	11,0008117
17	99502,66	998930,50	1003923,38	9.9978347	10,9995353
16	99499,76	996007,24	1001014,70	9.9978220	10,9982625
15	99496,85	993100,88	998122,91	9.9978093	10,9969934
14	99493,93	990211,25	995247,87	9.9977966	10,9957279
13	99491,00	987338,23	992389,43	9.9977838	10,9944660
12	99488,06	984481,66	989547,44	9.9977710	10,9932076
11	99485,12	981641,40	986721,76	9.9977582	10,9919529
10	99482,17	978817,32	983912,27	9.9977453	10,9907016
9	99479,21	976009,27	981118,80	9.9977323	10,9894539
8	99476,24	973217,13	978341,24	9.9977194	10,9882097
7	99473,26	970440,75	975579,44	9.9977064	10,9869690
6	99470,27	967680,00	972833,27	9.9976933	10,9857318
5	99467,28	964934,75	970102,60	9.9976803	10,9844979
4	99464,28	962204,86	967387,30	9.9976672	10,9832675
3	99461,27	959490,22	964687,24	9.9976540	10,9820406
2	99458,25	956790,68	962002,29	9.9976408	10,9808169
1	99455,22	954106,13	959332,33	9.9976276	10,9795967
0	99452,18	951436,45	956677,22	9.9976143	10,9783798

6 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Ta*
0	10452,85	10510,42	100550.82	9.0192346	9.021620
1	10481,78	10539,83	100553.90	9.0204348	9.022833
2	10510,70	10569,24	100556.99	9.0216318	9.024044
3	10539,63	10598,66	100560.09	9.0228254	9.025251
4	10568,56	10628,08	100563.20	9.0240157	9.0264548
5	10597,48	10657,50	100566.31	9.0252027	9.0276552
6	10626,41	10686,92	100569.43	9.0263865	9.0288524
7	10655,33	10716,34	100572.56	9.0275669	9.0300464
8	10684,25	10745,76	100575.70	9.0287442	9.0312373
9	10713,18	10775,19	100578.85	9.0299182	9.0324249
10	10742,10	10804,62	100582.01	9.0310890	9.0336093
11	10771,02	10834,05	100585.18	9.0322567	9.0347906
12	10799,94	10863,48	100588.35	9.0334212	9.0359688
13	10828,85	10892,91	100591.53	9.0345825	9.0371439
14	10857,77	10922,34	100594.72	9.0357407	9.0383159
15	10886,69	10951,78	100597.92	9.0368958	9.0394848
16	10915,60	10981,22	100601.13	9.0380477	9.0406506
17	10944,52	11010,66	100604.35	9.0391966	9.0418134
18	10973,43	11040,10	100607.58	9.0403424	9.0429731
19	11002,34	11069,54	100610.81	9.0414852	9.0441299
20	11031,26	11098,99	100614.05	9.0426249	9.0452836
21	11060,17	11128,44	100617.30	9.0437617	9.0464343
22	11089,08	11157,89	100620.56	9.0448954	9.0475821
23	11117,99	11187,34	100623.83	9.0460261	9.0487270
24	11146,89	11216,79	100627.11	9.0471538	9.0498689
25	11175,80	11246,25	100630.40	9.0482786	9.0510078
26	11204,71	11275,71	100633.70	9.0494005	9.0521439
27	11233,61	11305,17	100637.01	9.0505194	9.0532771
28	11262,52	11334,63	100640.32	9.0516354	9.0544074
29	11291,42	11364.09	100643.64	9.0527485	9.0555349
30	11320,32	11393,56	100646.97	9.0538588	9.0566595

83 Grad.

	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
0	99452,18	951436,45	956677,22	9.9976143	10,9783798
9	99449,14	948781,49	954036,86	9.9976011	10,9771662
8	99446,09	946141,16	951411,10	9.9975877	10,9759559
7	99443,03	943515,31	948799,84	9.9975743	10,9747490
6	99439,96	940903,84	946202,96	9.9975609	10,9735452
5	99436,88	938306,63	943620,33	9.9975475	10,9723448
4	99433,79	935723,55	941051,84	9.9975340	10,9711476
3	99430,69	933154,50	938497,38	9.9975205	10,9699536
2	99427,59	930599,36	935956,82	9.9975069	10,9687627
1	99424,48	928058,02	933430,06	9.9974933	10,9675751
0	99421,36	925530,35	930916,99	9.9974797	10,9663907
9	99418,23	923016,27	928417,49	9.9974660	10,9652094
8	99415,09	920515,64	925931,45	9.9974523	10,9640312
7	99411,94	918028,38	923458,77	9.9974386	10,9628561
6	99408,79	915554,36	920999,34	9.9974248	10,9616841
5	99405,63	913093,48	918553,05	9.9974110	10,9605152
4	99402,46	910645,64	916119,80	9.9973971	10,9593494
3	99399,28	908210,74	913699,49	9.9973833	10,9581866
2	99396,09	905788,67	911292,00	9.9973693	10,9570269
1	99392,89	903379,33	908897,25	9.9973554	10,9558701
0	99389,69	900982,61	906515,12	9.9973414	10,9547164
9	99386,48	898598,43	904145,53	9.9973273	10,9535657
8	99383,26	896226,68	901788,37	9.9973132	10,9524179
7	99380,03	893867,26	899443,54	9.9972991	10,9512730
6	99376,79	891520,08	897110,95	9.9972850	10,9501311
5	99373,54	889185,05	894790,51	9.9972708	10,9489922
4	99370,28	886862,06	892482,11	9.9972566	10,9478561
3	99367,02	884551,03	890185,67	9.9972423	10,9467229
2	99363,75	882251,86	887901,09	9.9972280	10,9455926
1	99360,47	879964,46	885628,28	9.9972137	10,9444651
0	99357,18	877688,74	883367,15	9.9971993	10,9433405

6 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. T*
30	11320,32	11393,56	100646.97	9.0538588	9,05665
31	11349,22	11423,03	100650.31	9.0549661	9,05778
32	11378,12	11452,50	100653.66	9.0560706	9,05890
33	11407,02	11481,97	100657.02	9.0571723	9,06001
34	11435,92	11511,44	100660.39	9.0582711	9,06112
35	11464,82	11540,91	100663.77	9.0593671	9,06224
36	11493,71	11570,39	100667.15	9.0604604	9,06334
37	11522,61	11599,87	100670.54	9.0615509	9,06445
38	11551,51	11629,35	100673.94	9.0626386	9,06555
39	11580,40	11658,83	100677.35	9.0637235	9,06665
40	11609,29	11688,31	100680.77	9.0648057	9,06775
41	11638,18	11717,80	100684.20	9.0658852	9,06884
42	11667,07	11747,29	100687.64	9.0669619	9,06993
43	11695,96	11776,78	100691.08	9.0680360	9,07102
44	11724,85	11806,28	100694.53	9.0691074	9,07211
45	11753,74	11835,78	100697.99	9.0701761	9,07319
46	11782,63	11865,28	100701.46	9.0712421	9,07427
47	11811,51	11894,78	100704.94	9.0723055	9,07535
48	11840,40	11924,28	100708.43	9.0733663	9,07643
49	11869,28	11953,78	100711.93	9.0744244	9,07750
50	11898,16	11983,28	100715.44	9.0754799	9,07857
51	11927,04	12012,79	100718.96	9.0765329	9,07964
52	11955,93	12042,30	100722.48	9.0775832	9,080709
53	11984,81	12071,81	100726.01	9.0786310	9,081772
54	12013,68	12101,32	100729.55	9.0796762	9.082833
55	12042,56	12130,84	100733.10	9.0807189	9.083891
56	12071,44	12160,36	100736.66	9.0817590	9,084946
57	12100,31	12189,88	100740.23	9.0827966	9,085999
58	12129,19	12219,40	100743.81	9.0838317	9,087050
59	12158,06	12248,93	100747.40	9.0848643	9,088098
60	12186,93	12278,46	100750.99	9.0858945	9,089143

83 Grad.

	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
0	99357,18	877688,74	883367,15	9.9971993	10,9433405
9	99353.88	875424,61	881117,61	9.9971849	10,9422187
8	99350,58	873171,98	878879,57	9.9971704	10,9410998
7	99347,27	870930,77	876652,95	9.9971559	10,9399836
6	99343,95	868700,88	874437,66	9.9971414	10,9388703
5	99340,62	866482,23	872233,61	9.9971268	10,9377597
4	99337,28	864274,75	870040,71	9.9971122	10,9366518
3	99333,93	862078,33	867858,89	9.9970976	10,9355467
2	99330,57	859892,90	865688,05	9.9970829	10,9344444
1	99327,20	857718,38	863528,12	9.9970682	10,9333447
0	99323.83	855554,68	861379,01	9.9970535	10,9322478
9	99320,45	853401,72	859240,65	9.9970387	10,9311535
8	99317.06	851259,43	857112,95	9.9970239	10,9300619
7	99313,66	849127,72	854995,84	9.9970090	10,9289730
6	99310,25	847006,51	852889,23	9.9969941	10,9278867
5	99306,84	844895,73	850793,04	9.9969792	10,9268031
4	99303,42	842795,31	848707,21	9.9969642	10,9257221
3	99299,99	840705,15	846631,65	9.9969492	10,9246437
2	99296,55	838625,19	844566,29	9.9969342	10,9235679
1	99293,10	836555,36	842511,05	9.9969191	10,9224947
0	99289,64	834495,57	840465,86	9.9969040	10,9214240
9	99286,17	832445,77	838430,65	9.9968888	10,9203559
8	99282,70	830405,86	836405,34	9.9968736	10,9192904
7	99279,22	828375,79	834389,86	9.9968584	10,9182274
6	99275,73	826355,47	832384,15	9.9968431	10.9171669
5	99272,23	824344,85	830388,12	9.9968278	10,9161089
4	99268,72	822343,84	828401,71	9.9968125	10,9150534
3	99265,21	820352,39	826424,85	9.9967971	10,9140004
2	99261,69	818370,41	824457,48	9.9967817	10.9129499
1	99258,16	816397,86	822499,52	9.9967662	10.9119019
0	99254,62	814434,64	820550,90	9.9967507	10,9108562

7 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log. T*
0	12186,93	12278,46	100750,99	9.0858945	9,08914
1	12215,81	12307,99	100754,59	9.0869221	9,09018
2	12244,68	12337,52	100758,20	9.0879473	9,09122
3	12273,55	12367,05	100761,82	9.0889700	9,09226
4	12302,41	12396,58	100765,45	9.0899903	9,09330
5	12331,28	12426,12	100769,09	9.0910082	9,09433
6	12360,15	12455,66	100772,74	9.0920237	9,09536
7	12389.01	12485,20	100776,39	9.0930367	9,09639
8	12417,88	12514,74	100780,05	9.0940474	9,09742
9	12446,74	12544,29	100783,72	9.0950556	9,09844
10	12475,60	12573,84	100787.40	9.0960615	9,09946
11	12504,46	12603,39	100791,09	9.0970651	9,10048
12	12533,32	12632,94	100794.79	9.0980662	9,10150
13	12562,18	12662,49	100798,50	9.0990651	9,10251
14	12591,04	12692,05	100802,22	9.1000616	9,10353
15	12619,90	12721,61	100805,95	9.1010558	9.10454
16	12648,75	12751,17	100809,69	9.1020477	9,10555
17	12677,61	12780,73	100813.43	9.1030373	9,10655
18	12706,46	12810,29	100817.18	9.1040246	9,10755
19	12735,31	12839,86	100820,94	9.1050096	9,10856
20	12764,16	12869,43	100824,71	9.1059924	9,10955
21	12793,01	12899,00	100828,49	9.1069729	9,11055
22	12821,86	12928,57	100832,28	9.1079512	9,11155
23	12850,71	12958,15	100836,07	9.1089272	9,11254
24	12879,56	12987,73	100839.88	9.1099010	9,11353
25	12908,41	13017,31	100843,70	9.1108726	9,11452
26	12937,25	13046,89	100847,52	9.1118420	9,11550
27	12966,09	13076,48	100851,35	9.1128092	9,11649
28	12994,94	13106,07	100855,19	9.1137742	9,11747
29	13023,78	13135,66	100859,04	9.1147370	9,11845
30	13052,62	13165,25	100862,90	9.1156977	9,11942

82 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tang*
60	99254,62	814434,64	820550,90	9.9967507	10,9108562
59	99251,07	812480,71	818611,57	9.9967352	10,9098131
58	99247,51	810535,99	816681,45	9.9967196	10,9087723
57	99243,94	808600,42	814760,48	9.9967040	10,9077340
56	99240,36	806673,94	812848,60	9.9966884	10.9066980
55	99236,78	804756,47	810945,73	9.9966727	10.9056645
54	99233,19	802847,96	809051,82	9.9966570	10,9046333
53	99229,59	800948,35	807166,81	9.9966412	10,9036045
52	99225,98	799057,56	805290,62	9.9966254	10,9025781
51	99222,36	797175,55	803423,21	9.9966096	10.9015540
50	99218,74	795302,24	801564,50	9.9965937	10,9005322
49	99215,11	793437,58	799714,45	9.9965778	10,8995128
48	99211,47	791581,51	797872,98	9.9965619	10,8984956
47	99207,82	789733,96	796040,03	9.9965459	10,8974808
46	99204,16	787894,89	794215,56	9.9965299	10,8964683
45	99200,49	786064,23	792399,50	9.9965138	10,8954580
44	99196,81	784241,91	790591,79	9.9964977	10,8944500
43	99193,13	782427,90	788792,38	9.9964816	10,8934443
42	99189.44	780622,12	787001,20	9.9964655	10,8924406
41	99185,74	778824,53	785218,21	9.9964493	10,8914366
40	99182,03	777035,06	783443,35	9.9964330	10,8904406
39	99178,31	775253,66	781676,56	9.9964167	10,8894438
38	99174,59	773480,28	779917,78	9.9964004	10,8884492
37	99170,86	771714,86	778166,97	9.9963841	10,8874569
36	99167,12	769957,35	776424,06	9.9963677	10,8864667
35	99163,37	768207,69	774689,01	9.9963513	10,8854787
34	99159,61	766465,84	772961,76	9.9963348	10,8844928
33	99155,84	764731,74	771242,27	9.9963183	10,8835091
32	99152,06	763005,33	769530,47	9.9963018	10,8825276
31	99148,28	761286,57	767826,31	9.9962852	10,8815482
30	99144,49	759575,41	766129,76	9.9962686	10,8805709

7 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Ta
30	13052,62	13165,25	100862,90	9.1156977	9.119429
31	13081,46	13194,84	100866,77	9.1166562	9.120404
32	13110.30	13224,44	100870,65	9.1176125	9.121377
33	13139.13	13254.04	100874.53	9.1185667	9.122348
34	13167,97	13283,64	100878,42	9.1195188	9.123317
35	13196,81	13313,24	100882,32	9.1204688	9.124283
36	13225,64	13342,85	100886,23	9.1214167	9.125248
37	13254,47	13372,46	100890,15	9.1223624	9.126211
38	13283,30	13402,07	100894.08	9.1233061	9.127171
39	13312.13	13431,68	100898,02	9.1242477	9.128130
40	13340,96	13461,29	100901,97	9.1251872	9.129086
41	13369,79	13490,91	100905,92	9.1261246	9.130041
42	13398,62	13520,53	100909,88	9.1270600	9.130993
43	13427,44	13550,15	100913,85	9.1279934	9.131944
44	13456,27	13579,77	100917.83	9.1289247	9.132892
45	13485,09	13609,40	100921.82	9.1298539	9.133839
46	13513,92	13639,03	100925,82	9.1307812	9.134783
47	13542,74	13668,66	100929,83	9.1317064	9.135726
48	13571,56	13698,29	100933,85	9.1326297	9.136666
49	13600,38	13727,93	100937.88	9.1335509	9.137605
50	13629,19	13757,57	100941,92	9.1344702	9.138541
51	13658.01	13787.21	100945.96	9.1353875	9.139476
52	13686,83	13816,85	100950,01	9.1363028	9.140409
53	13715,64	13846,50	100954.07	9.1372161	9.141340
54	13744,45	13876,15	100958,14	9.1381275	9.142268
55	13773,27	13905,80	100962.22	9.1390370	9.143195
56	13802,08	13935,45	100966,31	9.1399445	9.144121
57	13830,89	13965,10	100970,41	9.1408501	9.145044
58	13859,70	13994,76	100974,52	9.1417537	9.145965
59	13888,50	14024,42	100978,64	9.1426555	9.146885
60	13917,31	14054,08	100982,76	9.1435553	9.147802

82 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
30	99144,49	759575,41	766129,76	9.9962686	10,8805709
29	99140,69	757871,79	764440,75	9.9962519	10,8795957
28	99136,88	756175,67	762759,23	9.9962352	10,8786227
27	99133,06	754486,99	761085,16	9.9962185	10,8776518
26	99129,23	752805,71	759418,49	9.9962017	10,8766829
25	99125,39	751131,78	757759,16	9.9961849	10,8757161
24	99121,55	749465,14	756107,13	9.9961681	10,8747514
23	99117,70	747805,76	754462,36	9.9961512	10,8737888
22	99113,84	746153,57	752824,78	9.9961343	10,8728282
21	99109,97	744508,55	751194,37	9.9961174	10,8718697
20	99106,09	742870,64	749571,06	9.9961004	10,8709132
19	99102,21	741239,78	747954,82	9.9960834	10,8699587
18	99098,32	739615,95	746345,60	9.9960663	10,8690063
17	99094,42	737999,09	744743,35	9.9960492	10,8680558
16	99090,51	736389,16	743148,03	9.9960321	10,8671074
15	99086,59	734786,10	741559,59	9.9960149	10,8661609
14	99082,66	733189,89	739977,98	9.9959977	10,8652165
13	99078,72	731600,47	738403,18	9.9959804	10,8642740
12	99074,78	730017,80	736835,12	9.9959631	10,8633335
11	99070,83	728441,84	735273,77	9.9959458	10,8623949
10	99066,87	726872,55	733719,09	9.9959284	10,8614583
9	99062,90	725309,87	732171,02	9.9959111	10,8605236
8	99058,92	723753,78	730629,54	9.9958936	10,8595908
7	99054,93	722204,22	729094,60	9.9958761	10.8586600
6	99050,94	720661,16	727566,16	9.9958586	10.8577311
5	99046,94	719124,56	726044,17	9.9958411	10,8568041
4	99042,93	717594,37	724528,59	9.9958235	10,8558790
3	99038,91	716070,56	723019,40	9.9958059	10,8549558
2	99034,88	714553,08	721516,53	9.9957882	10.8540345
1	99030,84	713041,90	720019,96	9.9957705	10,8531150
0	99026,80	711536,97	718529,65	9.9957528	10,8521975

8 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tan
0	13917,31	14054,08	100982,76	9.1435553	9,1478025
1	13946,12	14083,74	100986,89	9.1444532	9,1487182
2	13974,92	14113,41	100991,03	9.1453493	9,1496321
3	14003,72	14143,08	100995,18	9.1462435	9,1505441
4	14032,52	14172,75	100999,34	9.1471358	9,1514543
5	14061,32	14202,43	101003,51	9.1480262	9,1523627
6	14090,12	14232,11	101007,69	9.1489148	9,1532692
7	14118,92	14261,79	101011,88	9.1498015	9,1541739
8	14147,72	14291,47	101016,07	9.1506864	9,1550769
9	14176,51	14321,15	101020,27	9.1515694	9,1559780
10	14205,31	14350,84	101024,48	9.1524507	9,1568773
11	14234,10	14380,53	101028,70	9.1533301	9,1577748
12	14262,89	14410,22	101032,93	9.1542076	9,1586706
13	14291,68	14439,91	101037.17	9.1550834	9,1595646
14	14320,47	14469,61	101041,42	9.1559574	9.1604569
15	14349.26	14499,31	101045,68	9.1568296	9,1613473
16	14378,05	14529,01	101049,95	9.1577000	9,1622361
17	14406,84	14558,71	101054,23	9.1585686	9,1631231
18	14435,62	14588,42	101058,51	9.1594354	9,1640083
19	14464,40	14618,13	101062,80	9.1603005	9,1648919
20	14493,19	14647,84	101067,10	9.1611639	9,1657737
21	14521.97	14677,55	101071,41	9.1620254	9,1666538
22	14550,75	14707,27	101075,73	9.1628853	9,1675322
23	14579,53	14736,99	101080,06	9.1637434	9,1684089
24	14608,30	14766,71	101084,40	9.1645998	9,1692839
25	14637,08	14796.44	101088,75	9.1654544	9,1701572
26	14665,85	14826,17	101093,11	9.1663074	9,1710289
27	14694,63	14855,90	101097,47	9.1671586	9,1718989
28	14723,40	14885,63	101101,84	9.1680081	9,1727672
29	14752,17	14915,36	101106.22	9.1688559	9,1736338
30	14780,94	14945,10	101110,61	9.1697021	9,1744988

81 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
60	99026,80	711536,97	718529,65	9.9957528	10,8521975
59	99022,75	710038,26	717045,56	9.9957350	10,8512818
58	99018,69	708545,73	715567,64	9.9957172	10,8503679
57	99014,62	707059,34	714095,87	9.9956993	10,8494559
56	99010,54	705579,05	712630,19	9.9956815	10,8485457
55	99006,45	704104,82	711170,58	9.9956635	10,8476373
54	99002,36	702636,62	709717,00	9.9956456	10,8467308
53	98998,26	701174,41	708269,41	9.9956276	10,8458261
52	98994,15	699718,06	706827,77	9.9956095	10,8449231
51	98990,03	698267,81	705392,05	9.9955915	10,8440220
50	98985,90	696823,35	703962,20	9.9955734	10,8431227
49	98981,76	695384,73	702538,20	9.9955552	10,8422252
48	98977,62	693951,92	701120,01	9.9955370	10,8413294
47	98973.47	692524,89	699707,60	9.9955188	10,8404354
46	98969,31	691103,59	698300,92	9.9955005	10,8395431
45	98965,14	689687,99	696899,94	9.9954822	10,8386527
44	98960,96	688273,07	695504,64	9.9954639	10,8377639
43	98956,77	686873,78	694114,96	9.9954455	10,8368769
42	98952,57	685475,08	692730,89	9.9954271	10,8359917
41	98948,37	684081,96	691352,39	9.9954087	10,8351081
40	98944,16	682694,37	689979,42	9.9953902	10,8342263
39	98939.94	681312,27	688611,95	9.9953717	10,8333462
38	98935,71	679935,68	687249,95	9.9953531	10,8324678
37	98931,47	678564,46	685893,38	9.9953345	10,8315911
36	98927,23	677198,67	684542,22	9.9953159	10.8307161
35	98922,98	675838,26	683196,42	9.9952972	10.8298428
34	98918,72	674483,18	681855,97	9.9952785	10,8289711
33	98914.45	673133,41	68052082	9.9952597	10,8281011
32	98910,17	671788,91	679190,95	9.9952409	10,8272328
31	98905,88	670449,66	677866,32	9.9952221	10.8263662
30	98901,58	669115,62	676546,91	9.9952033	10,8255012

8 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tan
30	14780,94	14945,10	101110,61	9.1697021	9,1744988
31	14809.71	14974,84	101115,01	9.1705465	9,1753622
32	14838,48	15004,58	101119,42	9.1713893	9,1762239
33	14867,24	15034,33	101123,84	9.1722305	9,1770840
34	14896,01	15064,08	101128,27	9.1730699	9,1779425
35	14924,77	15093,83	101132,71	9.1739077	9,1787993
36	14953,53	15123,58	101137,15	9.1747439	9,1796546
37	14982,30	15153,33	101141,60	9.1755784	9.1805082
38	15011,06	15183,09	101146,06	9.1764112	9,1813602
39	15039,81	15212,85	101150,53	9.1772425	9,1822105
40	15068,57	15242,61	101155.01	9.1780721	9,1830595
41	15097,33	15272,38	101159,50	9.1789001	9,1839068
42	15126,08	15302,15	101164,00	9.1797265	9,1847525
43	15154,84	15331,92	101168,51	9.1805512	9,1855966
44	15183,59	15361,89	101173,03	9.1813744	9,1864392
45	15212,34	15391,47	101177,56	9.1821960	9,1872802
46	15241,09	15421,25	101182,09	9.1830160	9,1881196
47	15269,84	15451,03	101186,63	9.1838344	9,1889575
48	15298,58	15480,82	101191,18	9.1846512	9,1897939
49	15327,33	15510,61	101195,74	9.1854665	9,1906287
50	15356,07	15540,40	101200,31	9.1862802	9,1914621
51	15384,82	15570,19	101204,89	9.1870923	9,1922939
52	15413,56	15599,98	101209,48	9.1879029	9,1931241
53	15442,30	15629,78	101214.08	9.1887120	9,1939529
54	15471,04	15659,58	101218,69	9.1895195	9,1947802
55	15499,78	15689,38	101223,31	9.1903254	9,1956059
56	15528,51	15719,19	101227,93	9.1911299	9,1964302
57	15557,25	15749,00	101232,56	9.1919328	9,1972530
58	15585,98	15778,81	101237,20	9.1927342	9,1980743
59	15614,72	15808.62	101241,85	9.1935341	9,1988941
60	15643,45	15838,44	101246,51	9.1943324	9,1997125

81 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
30	98901,58	669115,62	676546,91	9.9952033	10,8255012
29	98897,28	667786,77	675232,68	9.9951844	10,8246378
28	98892,97	666463,07	673923,60	9.9951654	10,8237761
27	98888,65	665144,49	672619,65	9.9951464	10,8229260
26	98884,32	663831,00	671320,79	9.9951274	10,8220575
25	98879,98	662522,58	670026,99	9.9951084	10,8212007
24	98875,63	661219,19	668738,22	9.9950893	10,8203454
23	98871,28	659920,80	667454,46	9.9950702	10,8194918
22	98866,92	658627,39	666175,68	9.9950510	10,8186398
21	98862,55	657338,92	664901,84	9.9950318	10,8177894
20	98858,17	656055,38	663632,93	9.9950126	10,8169405
19	98853,78	654776,72	662368,90	9.9949933	10,8160932
18	98849,38	653502,93	661109,73	9.9949740	10,8152475
17	98844,98	652233,96	659855,40	9.9949546	10,8144034
16	98840,57	650969,81	658605,87	9.9949352	10,8135608
15	98836,15	649710,43	657361,12	9.9949158	10,8127198
14	98831,72	648455,81	656121,13	9.9948964	10,8118804
13	98827,28	647205,91	654885,86	9.9948769	10,8110425
12	98822,83	645960,70	653655,28	9.9948573	10,8102061
11	98818,38	644720,17	652429,38	9.9948377	10,8093713
10	98813,92	643484,28	651208,12	9.9948181	10,8085379
9	98809,45	642253,01	649991,48	9.9947985	10,8077061
8	98804,97	641026,33	648779,44	9.9947788	10,8068759
7	98800,48	639804,22	647571,95	9.9947591	10,8060471
6	98795,98	638586,65	646369,01	9.9947393	10,8052198
5	98791,48	637373,59	645170,59	9.9947195	10,8043941
4	98786,97	636165,02	643976,66	9.9946997	10,8035698
3	98782,45	634960,92	642787,19	9.9946798	10,8027470
2	98777,92	633761,26	641602,16	9.9946599	10,8019257
1	98773,38	632566,01	640421,54	9.9946399	10,8011059
0	98768,83	631375,15	639245,32	9.9946199	10,8002875

9 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tan
0	15643.45	15838,44	101246.51	9.1943324	9,1997125
1	15672,18	15868,26	101251,18	9.1951293	9,2005294
2	15700,91	15898,08	101255.86	9.1959247	9,2013449
3	15729.63	15927,91	101260,55	9.1967186	9,2021588
4	15758,36	15957,74	101265,25	9.1975110	9,2029714
5	15787,08	15987,57	101269.96	9.1983019	9,2037825
6	15815.81	16017,40	101274.67	9.1990913	9,2045922
7	15844,53	16047,24	101279.39	9.1998793	9,2054004
8	15873,25	16077,08	101284.12	9.2006658	9,2062072
9	15901,97	16106,92	101288,86	9.2014509	9,2070126
10	15930,69	16136,77	101293.61	9.2022345	9,2078165
11	15959,40	16166,62	101298.37	9.2030167	9,2086191
12	15988,12	16196,47	101303,14	9.2037974	9,2094203
13	16016,83	16226,32	101307.92	9.2045766	9,2102200
14	16045,55	16256,17	101312,71	9.2953545	9,2110184
15	16074.26	16286,03	101317.51	9.2061309	9,2118153
16	16102,97	16315,89	101322.31	9.2069059	9,2126109
17	16131,67	16345,76	101327,12	9.2076795	9,2134051
18	16160,83	16375,63	101331.94	9.2084516	9,2141980
19	16189,09	16405,50	101336.77	9.2092224	9,2149894
20	16217,79	16435,37	101341.61	9.2099917	9,2157795
21	16246,50	16465,25	101346.46	9.2107597	9,2165683
22	16275,20	16495,13	101351,32	9.2115263	9,2173556
23	16303,90	16525,01	101356.19	9.2122914	9,2181417
24	16332.60	16554,89	101361,07	9.2130552	9.2189264
25	16361,29	16584,78	101365.95	9.2138176	9,2197097
26	16389,99	16614,67	101370.84	9.2145787	9,2204917
27	16418,68	16644,56	101375.74	9.2153384	9,2212724
28	16447,38	16674,46	101380.65	9.2160967	9,2220518
29	16476,07	16704,36	101385.57	9.2168536	9,2228298
30	16504,76	16734,26	101390.50	9.2176092	9,2236065

80 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
60	98768,83	631375.15	639245.32	9.9946199	10,8002875
59	98764.28	630188,66	638073.47	9.9945999	10,7994706
58	98759.72	629006,51	636905.95	9.9945798	10,7986551
57	98755.15	627828,68	635742,76	9.9945597	10,7978411
56	98750,57	626655.14	634583.86	9.9945396	10,7970286
55	98745.98	625485.88	633429.23	9.9945194	10,7962175
54	98741.38	624320,86	632278.84	9.9944992	10,7954078
53	98736.77	623160,07	631132,69	9.9944789	10,7945996
52	98732.16	622003.47	629990.73	9.9944587	10,7937928
51	98727.54	620851.06	628852,95	9.9944383	10,7929874
50	98722.91	619702,79	627719.33	9.9944180	10,7921835
49	98718,27	618558,67	626589.84	9.9943975	10,7913809
48	98713,62	617418,65	625464.46	9.9943771	10,7905797
47	98708.97	616282,72	624343.16	9.9943566	10,7897800
46	98704.31	615150,85	623225.94	9.9943361	10,7889816
45	98699.64	614023.03	622112.75	9.9943156	10,7881847
44	98694.96	612899,23	621003.59	9.9942950	10,7873891
43	98690.27	611779.43	619898.43	9.9942743	10,7865949
42	98685.57	610663,60	618797.25	9.9942537	10,7858020
41	98680.86	609551.74	617700,03	9.9942330	10,7850106
40	98676.15	608443.81	616606.74	9.9942122	10,7842205
39	98671.43	607339.79	615517.36	9.9941914	10,7834317
38	98666,70	606239,67	614431.89	9.9941706	10,7826444
37	98661,96	605143.43	613350,28	9.9941498	10,7818583
36	98657.21	604051.03	612272.53	9.9941289	10,7810736
35	98652.46	602962.47	611198.61	9.9941079	10,7802903
34	98647.70	601877.72	610128.50	9.9940870	10,7795083
33	98642.93	600796.76	609062.19	9.9940659	10,7787276
32	98638.15	599719.57	607999.64	9.9940449	10,7779482
31	98633.36	598646.14	606940.85	9.9940238	10,7771702
30	98628.56	597576.44	605885.80	9.9940027	10,7763935

9 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tan
30	16504,76	16734,26	101390.50	9.2176092	9,2236065
31	16533,45	16764,16	101395.44	9.2183635	9,2243819
32	16562,14	16794,07	101400.39	9.2191164	9,2251561
33	16590,82	16823,98	101405.35	9.2198680	9,2259289
34	16619,51	16853,89	101410.32	9.2206182	9,2267004
35	16648,19	16883,81	101415.30	9.2213671	9,2274706
36	16676,87	16913,73	101420.29	9.2221147	9,2282395
37	16705,55	16943,65	101425.29	9.2228609	9,2290071
38	16734,23	16973,58	101430.29	9.2236059	9,2297735
39	16762,91	17003,51	101435.30	9.2243495	9,2305386
40	16791,59	17033,44	101440.32	9.2250918	9,2313024
41	16820,26	17063,37	101445.35	9.2258328	9,2320650
42	16848,94	17093,31	101450.39	9.2265725	9,2328262
43	16877,61	17123,25	101455.44	9.2273110	9,2335863
44	16906,28	17153,19	101460.50	9.2280481	9,2343451
45	16934,95	17183,14	101465.57	9.2287839	9,2351026
46	16963,62	17213,09	101470.64	9.2295185	9,2358589
47	16992,28	17243,04	101475.72	9.2302518	9,2366139
48	17020,95	17273,00	101480.81	9.2309838	9,2373678
49	17049,61	17302,96	101485.91	9.2317145	9,2381203
50	17078,28	17332,92	101491.02	9.2324440	9,2388717
51	17106,94	17362,88	101496.14	9.2331722	9,2396218
52	17135,60	17392,85	101501.27	9.2338992	9,2403708
53	17164,25	17422,82	101506.41	9.2346249	9,2411185
54	17192,91	17452,79	101511.56	9.2353494	9,2418650
55	17221,56	17482,77	101516.72	9.2360726	9.2426103
56	17250,22	17512,75	101521.89	9.2367946	9.2433543
57	17278,87	17542,73	101527.07	9.2375153	9,2440972
58	17307,52	17572,72	101532.26	9.2382349	9,2448389
59	17336,17	17602,71	101537.46	9.2389532	9,2455794
60	17364,82	17632,70	101542.67	9.2396702	9,2463188

80 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
30	98628,56	597576,44	605885,80	9.9940027	10,7763935
29	98623,75	596510,45	604834,45	9.9939815	10,7756181
28	98618,94	595448,15	603786,80	9.9939603	10,7748439
27	98614,12	594389,52	602742,82	9.9939391	10,7740711
26	98609,29	593334,55	601702,50	9.9939178	10,7732996
25	98604,45	592283,22	600665,81	9.9938965	10,7725294
24	98599.60	591235,50	599632,74	9.9938752	10,7717605
23	98594,74	590191,38	598603.26	9.9938538	10,7709929
22	98589,88	589150,84	597577.37	9.9938324	10,7702265
21	98585,01	588113,86	596555.04	9.9938109	10,7694614
20	98580,13	587080,42	595536,25	9.9937894	10,7686976
19	98575,24	586050,51	594520,98	9.9937679	10,7679350
18	98570,34	585024,10	593509,22	9.9937463	10,7671738
17	98565.44	584001,17	592500,95	9.9937247	10,7664137
16	98560,53	582981,72	591496,14	9.9937030	10,7656549
15	98555,61	581965,72	590494,79	9.9936813	10,7648974
14	98550,68	580953,15	589496,88	9.9936596	10,7641411
13	98545,74	579944,00	588502,38	9.9936378	10,7633861
12	98540,79	578938.25	587511,28	9.9936160	10,7626322
11	98535,83	577935,88	586523,56	9.9935942	10,7618797
10	98530,87	576936,88	585539,20	9.9935723	10,7611283
9	98525,90	575941,22	584558,20	9.9935504	10,7603782
8	98520,92	574948,89	583580,53	9.9935285	10,7596292
7	98515,93	573959,88	582606,17	9.9935065	10,7588815
6	98510,93	572974,16	581635,10	9.9934844	10,7581350
5	98505,92	571991,73	580667,32	9.9934624	10,7573897
4	98500,91	571012,56	579702,80	9.9934403	10,7566457
3	98495,89	570036,63	578741,53	9.9934181	10,7559028
2	98490,86	569063,94	577783,50	9.9933959	10,7551611
1	98485,82	568094,46	576828,67	9.9933737	10,7544206
0	98480,77	567128.18	575877,05	9.9933515	10,7536812

10 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Ta
0	17364,82	17632,70	101542.67	9,2396702	9.246318
1	17393,46	17662,69	101547.88	9,2403861	9.247056
2	17422,11	17692,69	101553.10	9,2411007	9.247793
3	17450,75	17722,69	101558.33	9,2418141	9.248529
4	17479,39	17752,69	101563.57	9,2425264	9.249264
5	17508,03	17782,70	101568.82	9,2432374	9.249997
6	17536,67	17812,71	101574.08	9,2439472	9.250730
7	17565,31	17842,72	101579.35	9,2446558	9.251461
8	17593,95	17872,74	101584.63	9,2453632	9.252191
9	17622,58	17902,76	101589.92	9,2460695	9.252920
10	17651,21	17932,78	101595.21	9.2467746	9.253647
11	17679,84	17962,81	101600.51	9,2474784	9,254374
12	17708.47	17992,84	101605.82	9,2481811	9.255099
13	17737,10	18022,87	101611.14	9,2488827	9.255824
14	17765,73	18052,91	101616.47	9,2495830	9.256547
15	17794,35	18082,95	101621.81	9,2502822	9.257269
16	17822,98	18112,99	101627.16	9,2509803	9.257990
17	17851,60	18143,03	101632.52	9,2516772	9.258709
18	17880,22	18173,08	101637.89	9,2523729	9.259428
19	17908,84	18203,13	101643.27	9,2530675	9.260146
20	17937,46	18233,18	101648.66	9,2537609	9.260862
21	17966,07	18263,24	101654.06	9,2544532	9.261577
22	17994,69	18293,30	101659.46	9,2551444	9.262292
23	18023,30	18323,36	101664.87	9,2558344	9.263005
24	18051,91	18353,43	101670.29	9,2565233	9.263717
25	18080,52	18383,50	101675.72	9,2572110	9.264428
26	18109,13	18413,57	101681.16	9,2578977	9.265138
27	18137.74	18443,65	101686.61	9,2585832	9.265847
28	18166,35	18473.73	101692.07	9,2592676	9.266554
29	18194,95	18503,81	101697.54	9,2599509	9.267261
30	18223,55	18533,90	101703.02	9,2606330	9.267966

79 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
60	98480,77	567128,18	575877,05	9,9933515	10,7536812
59	98475,71	566165,09	574928,61	9,9933292	10,7529431
58	98470,65	565205,16	573983,33	9,9933068	10,7522061
57	98465,58	564248,38	573041,21	9,9932845	10,7514703
56	98460,50	563294,74	572102,23	9,9932621	10,7507357
55	98455,41	562344,21	571166,36	9.9932396	10,7500022
54	98450,31	561396,80	570233,60	9,9932171	10,7492699
53	98445,21	560452,47	569303,93	9,9931946	10,7485388
52	98440,10	559511,21	568377,34	9,9931720	10,7478088
51	98434,98	558573,02	567453,80	9,9931494	10,7470800
50	98429.85	557637,86	566533,31	9,9931268	10,7463523
49	98424,71	556705,74	565615,84	9,9931041	10,7456257
48	98419,56	555776,63	564701,40	9,9930814	10,7449003
47	98414,40	554850,52	563789,95	9,9930587	10,7441760
46	98409,24	553927,40	562881,48	9,9930359	10,7434528
45	98404,07	553007,24	561975,99	9.9930131	10,7427308
44	98398,89	552090,05	561073,45	9,9929902	10,7420099
43	98393,70	551175,79	560173,86	9,9929673	10,7412901
42	98388,50	550264,46	559277,19	9,9929444	10,7405715
41	98383,29	549356,04	558383,43	9,9929214	10,7398539
40	98378,08	548450,52	557492,58	9,9928984	10,7391375
39	98372,86	547547,88	556604,60	9,9928753	10,7384221
38	98367,63	546648,12	555719,50	9,9928522	10,7377079
37	98362,39	545751,21	554837,26	9,9928291	10,7369947
36	98357,14	544857,15	553957,86	9,9928059	10,7362827
35	98351,89	543965,92	553081,29	9,9927827	10,7355717
34	98346,63	543077,50	552207,54	9,9927595	10,7348618
33	98341,36	542191,88	551336,59	9,9927362	10,7341530
32	98336,08	541309,06	550468,43	9,9927129	10,7334453
31	98330,79	540429,01	549603.05	9,9926895	10,7327387
30	98325,49	539551,72	548740,43	9,9926661	10,7320331

1 0 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Ta
30	18223,55	18533,90	101703,02	9,2606330	9.267966
31	18252,15	18563,99	101708,51	9,2613141	9.268671
32	18280,75	18594,08	101714,01	9,2619941	9.269374
33	18309,35	18624,18	101719,52	9,2626729	9.270077
34	18337,95	18654,28	101725,04	9,2633507	9.270778
35	18366,54	18684,38	101730,56	9,2640274	9.271478
36	18395,13	18714,49	101736,09	9,2647030	9.272178
37	18423,73	18744,60	101741,63	9,2653775	9.272876
38	18452,32	18774,71	101747,18	9,2660509	9.273573
39	18480,91	18804,83	101752,74	9,2667232	9.274269
40	18509,49	18834,95	101758,31	9,2673945	9.274964
41	18538,08	18865,07	101763,89	9.2680647	9.2756584
42	18566,66	18895,20	101769,48	9,2687338	9.2763514
43	18595,24	18925,33	101775,08	9,2694019	9.2770434
44	18623,82	18955,46	101780,69	9,2700689	9.2777343
45	18652,40	18985,59	101786,31	9,2707348	9.2784242
46	18680,98	19015,73	101791,94	9,2713997	9.2791131
47	18709,56	19045,87	101797,58	9,2720635	9.2798009
48	18738,13	19076,02	101803,22	9,2727263	9.2804878
49	18766,70	19106,17	101808,87	9,2733880	9.2811736
50	18795,27	19136,32	101814,53	9,2740487	9.2818585
51	18823,84	19166,48	101820,20	9,2747083	9.2825423
52	18852,41	19196,64	101825,88	9,2753669	9.2832251
53	18880,98	19226,80	101831,57	9,2760245	9.2839070
54	18909,54	19256,96	101837,27	9,2766811	9.2845878
55	18938,11	19287,13	101842,98	9,2773366	9.2852677
56	18966,67	19317,30	101848,70	9,2779911	9.2859466
57	18995,23	19347,48	101854,43	9,2786445	9.2866245
58	19023,79	19377,66	101860,17	9,2792970	9.2873014
59	19052,34	19407,84	101865,92	9,2799484	9.2879773
60	19080,90	19438,03	101871,68	9,2805988	9.2886523

79 Grad.

Minut	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
0	98325,49	539551,72	548740,43	9.9926661	10,7320331
9	98320,18	538677.18	547880,55	9.9926427	10,7313286
8	98314,87	537805,38	547023,42	9.9926192	10,7306251
7	98309,55	536936.30	546169,01	9.9925957	10,7299228
6	98304,22	536069,93	545317,31	9.9925722	10,7292214
5	98298,88	535206,26	544468.31	9.9925486	10,7285212
4	98293,53	534345,27	543621,99	9.9925250	10,7278220
3	98288,17	533486,96	542778,35	9.9925013	10,7271238
2	98282,81	532631,31	541937,37	9.9924776	10,7264267
1	98277,44	531778,30	541099,03	9.9924539	10,7257306
0	98272,06	530927,93	540263,33	9.9924301	10,7250356
9	98266,67	530080,18	539430,26	9.9924063	10,7243416
8	98261,27	529235,05	538599,79	9.9923824	10,7236486
7	98255,87	528392,51	537771,92	9.9923585	10,7229566
6	98250,46	527552,55	536946,64	9.9923346	10,7222657
5	98245,04	526715,17	536123,93	9.9923106	10,7215758
4	98239,61	525880,35	535303,79	9.9922866	10,7208869
3	98234,17	525048,09	534486,20	9.9922626	10,7201991
2	98228,72	524218,36	533671,14	9.9922385	10,7195122
1	98223,27	523391,16	532858,61	9.9922144	10,7188264
0	98217,81	522566,47	532048,60	9.9921902	10,7181415
9	98212,34	521744,28	531241,09	9.9921660	10,7174577
8	98206,86	520924,59	530436,08	9.9921418	10,7167749
7	98201,37	520107,38	529633,54	9.9921175	10,7160930
6	98195,87	519292,64	528833,47	9.9920932	10,7154122
5	98190,36	518480,35	528035,87	9.9920689	10,7147323
4	98184,85	517670,51	527240,70	9.9920445	10,7140534
3	98179,33	516863,11	526447,98	9.9920201	10,7133755
2	98173,80	516058,13	525657,68	9.9919956	10,7126986
1	98168,26	515255,57	524869,79	9.9919711	10,7120227
0	98162,71	514455,40	524084,31	9.9919466	10,7113477

11 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Ta
0	19080,90	19438,03	101871.68	9.2805988	9.288652
1	19109,45	19468,22	101877.44	9.2812483	9.289326
2	19138,00	19498,41	101883.21	9.2818967	9.289999
3	19166,55	19528,61	101888.99	9.2825441	9.290671
4	19195,10	19558,81	101894.78	9.2831905	9.291342
5	19223,65	19589,01	101900.58	9.2838359	9.292012
6	19252,20	19619,22	101906.39	9.2844803	9.292681
7	19280,74	19649,43	101912.21	9.2851237	9.293350
8	19309,28	19679,64	101918.04	9.2857661	9.294017
9	19337,82	19709,86	101923.88	9.2864076	9.294683
10	19366,36	19740,08	101929.73	9.2870480	9.295348
11	19394,90	19770,30	101935.59	9.2876875	9.296013
12	19423,44	19800,53	101941.46	9.2883260	9.296676
13	19451,97	19830,76	101947.34	9.2889636	9.2973395
14	19480,50	19861,00	101953.23	9.2896001	9.298001
15	19509,03	19891,24	101959.12	9.2902357	9.2986618
16	19537,56	19921,48	101965.02	9.2908704	9.299321
17	19566,09	19951,72	101970.93	9.2915040	9.2999804
18	19594,61	19981,97	101976.85	9.2921367	9.3006383
19	19623,14	20012,22	101982.78	9.2927685	9.3012954
20	19651,66	20042,48	101988.72	9.2933993	9.3019514
21	19680,18	20072,74	101994.67	9.2940291	9.3026066
22	19708,70	20103,00	102000.63	9.2946580	9.3032609
23	19737,22	20133,27	102006.60	9.2952859	9.3039143
24	19765,73	20163,54	102012.58	9.2959129	9.3045667
25	19794,25	20193,81	102018.57	9.2965390	9.3052183
26	19822,76	20224,09	102024.57	9.2971641	9.3058689
27	19851,27	20254,37	102030.58	9.2977883	9.3065187
28	19879,78	20284,65	102036.60	9.2984116	9.3071675
29	19908,29	20314,94	102042.63	9.2990339	9.3078155
30	19936,79	20345,23	102048.67	9.2996553	9.3084626

78 Grad.

Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
98162,71	514455.40	524084.31	9.9919466	10,7113477
98157,16	513657,63	523301,21	9.9919220	10,7106737
98151,60	512862.24	522520,50	9.9918974	10,7100007
98146,03	512069,21	521742,16	9.9918727	10,7093287
98140,45	511278,55	520966,18	9.9918480	10,7086576
98134,86	510490,24	520192,54	9.9918233	10,7079874
98129,26	509704,26	519421,25	9.9917986	10,7073183
98123,66	508920,61	518652,28	9.9917737	10,7066500
98118,05	508139,28	517885,63	9.9917489	10,7059828
98112,43	507360,25	517121,28	9.9917240	10,7053164
98106,80	506583,52	516359,24	9.9916991	10,7046511
98101,16	505809,07	515599,48	9.9916741	10,7039866
98095,51	505036,90	514841,99	9.9916492	10,7033231
98089,86	504267,00	514086,77	9.9916241	10,7026605
98084,20	503499,35	513333,81	9.9915990	10,7019989
98078,53	502733,95	512583,09	9.9915739	10,7013382
98072,85	501970,78	511834,61	9.9915488	10,7006784
98067,16	501209,84	511088,35	9.9915236	10,7000196
98061,46	500451,11	510344,31	9.9914984	10,6993617
98055,76	499694,59	509602,48	9.9914731	10,6987046
98050,05	498940,27	508862,84	9.9914478	10,6980486
98044,33	498188,13	508125,39	9.9914225	10,6973934
98038,60	497438,17	507390,12	9.9913971	10,6967391
98032,86	496690,37	506657,01	9.9913717	10,6960857
98027,11	495944,74	505926,06	9.9913462	10,6954333
98021,36	495201,25	505197,26	9.9913207	10,6947817
98015,60	494459,90	504470,60	9.9912952	10,6941311
98009,83	493720,68	503746,07	9.9912696	10,6934813
98004,05	492983,58	503023,67	9.9912440	10,6928325
97998,26	492248,59	502303,37	9.9912184	10,6921845
97992,47	491515,70	501585,17	9.9911927	10,6915374

11 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Ta*
30	19936,79	20345,23	102048.67	9.2996553	9.308462
31	19965,30	20375,52	102054.71	9.3002758	9.309108
32	19993,80	20405,82	102060.76	9.3008953	9.309754
33	20022,30	20436,12	102066.82	9.3015140	9.310398
34	20050,80	20466,43	102072,89	9.3021317	9.311042
35	20079.30	20496,74	102078.97	9.3027485	9.311684
36	20107,79	20527,05	102085.06	9.3033644	9.312326
37	20136,29	20557,37	102091.16	9.3039794	9.312967
38	20164,78	20587,69	102097.27	9.3045934	9.313607
39	20193,27	20618,01	102103.39	9.3052066	9.314246
40	20221,76	20648,34	102109.52	9.3058189	9.314885
41	20250,24	20678,67	102115.66	9.3064303	9.315522
42	20278,73	20709,00	102121.81	9.3070407	9.316159
43	20307,21	20739.34	102127.97	9.3076503	9.316795
44	20335,69	20769,68	102134.14	9.3082590	9.317429
45	20364,17	20800,03	102140.32	9.3088668	9.318064
46	20392,65	20830,38	102146.50	9.3094737	9.318697
47	20421,13	20860,73	102152.69	9.3100798	9.319329
48	20449.61	20891,09	102158.89	9.3106849	9.319961
49	20478,08	20921,45	102165.10	9.3112892	9.320591
50	20506,55	20951,81	102171.32	9.3118926	9.321221
51	20535,02	20982,18	102177.55	9.3124951	9.321850
52	20563,49	21012,55	102183.79	9.3130968	9.322478
53	20591,95	21042,93	102190.04	9.3136976	9.323106
54	20620,42	21073.31	102196.30	9.3142975	9.323732
55	20648,88	21103,69	102202.57	9.3148965	9.324358
56	20677,34	21134,07	102208.85	9.3154947	9.324983
57	20705,80	21164,46	102215.14	9.3160921	9.325607
58	20734,26	21194,85	102221.44	9.3166885	9.326230
59	20762,71	21225,25	102227.75	9.3172841	9.326852
60	20791,17	21255,65	102234.07	9.3178789	9.327474

78 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
30	97992.47	491515.70	501585.17	9.9911927	10,6915374
29	97986,67	490784.91	500869,07	9.9911670	10,6908912
28	97980.86	490056,20	500155.05	9.9911412	10,6902459
27	97975.04	489329.56	499443.11	9.9911154	10,6896015
26	97969.21	488604.99	498733.23	9.9910896	10,6889579
25	97963.37	487882,48	498025.41	9.9910637	10,6883152
24	97957.52	487162,01	497319.64	9.9910378	10.6876734
23	97951.67	486443.59	496615.91	9.9910119	10,6870325
22	97945.81	485727.19	495914,21	9.9909859	10,6863924
21	97939.94	485012,82	495214.53	9.9909598	10,6857532
20	97934.06	484300.45	494516,87	9.9909338	10,6851149
19	97928.17	483590.10	493821,20	9.9909077	10,6844774
18	97922.28	482881.74	493127.54	9.9908815	10,6838408
17	97916.38	482175.36	492435.86	9.9908553	10,6832050
16	97910.47	481470.96	491746.16	9.9908291	10,6825701
15	97904.55	480768.54	491058.44	9.9908029	10,6819360
14	97898,62	480068,08	490372,67	9.9907766	10,6813028
13	97892,68	479369.57	489688,86	9.9907502	10,6806705
12	97886.74	478673.00	489007.00	9.9907239	10,6800389
11	97880.79	477978.37	488327.07	9.9906974	10,6794082
10	97874.83	477285.67	487649.07	9.9906710	10,6787784
9	97868.86	476594.90	486972.99	9.9906445	10,6781494
8	97862.88	475906.03	486298.83	9.9906180	10,6775212
7	97856.89	475219.07	485626.57	9.9905914	10,6768939
6	97850.90	474534.01	484956.21	9.9905648	10,6762673
5	97844.90	473850.83	484287.74	9.9905382	10,6756416
4	97838.89	473169.54	483621.14	9.9905115	10,6750168
3	97832.87	472490.12	482956.43	9.9904848	10,6743927
2	97826.84	471812.56	482293.57	9.9904580	10,6737695
1	97820.80	471136.86	481632.58	9.9904312	10,6731471
0	97814.76	470463.01	480973.43	9.9904044	10,6725255

12 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
0	20791.17	21255,65	102234.07	9.3178789	9.3274745
1	20819,62	21286,06	102240.40	9.3184728	9.3280953
2	20848,07	21316,47	102246,73	9.3190659	9.3287153
3	20876,52	21346,88	102253.07	9.3196581	9.3293345
4	20904,97	21377.30	102259.42	9.3202495	9.3299528
5	20933,41	21407,72	102265.78	9.3208400	9.3305704
6	20961,86	21438,14	102272.15	9.3214297	9.3311872
7	20990,30	21468,57	102278.53	9.3220186	9.3318031
8	21018,74	21499,00	102284.92	9.3226066	9.3324183
9	21047,18	21529,44	102291.32	9.3231938	9.3330327
10	21075,61	21559,88	102297.73	9.3237802	9.3336463
11	21104,05	21590,32	102304.15	9.3243657	9.3342591
12	21132,48	21620,77	102310,58	9.3249505	9.3348711
13	21160,91	21651,22	102317.02	9.3255344	9.3354823
14	21189,34	21681,67	102323.47	9.3261174	9.3360927
15	21217,77	21712,13	102329.93	9.3266997	9.3367024
16	21246,19	21742,59	102336.40	9.3272811	9.3373113
17	21274,62	21773,06	102342,88	9.3278617	9.3379194
18	21303,04	21803.53	102349.37	9.3284416	9.3385267
19	21331,46	21834,00	102355.87	9.3290206	9.3391333
20	21359,88	21864,48	102362.38	9.3295988	9.3397391
21	21388,29	21894,96	102368.90	9.3301761	9.3403441
22	21416,71	21925,44	102375.43	9.3307527	9.3409484
23	21445,12	21955,93	102381.96	9.3313285	9.3415519
24	21473,53	21986,42	102388.50	9.3319035	9.3421546
25	21501,94	22016,92	102395,05	9.3324777	9.3427566
26	21530,35	22047,42	102401.61	9.3330511	9.3433578
27	21558,76	22077,93	102408.18	9.3336237	9.3439583
28	21587,16	22108,44	102414.76	9.3341955	9.3445580
29	21615,56	22138,95	102421,35	9.3347665	9.3451570
30	21643.96	22169,47	102427.95	9.3353368	9.3457552

77 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
60	97814.76	470463.01	480973.43	9.9904044	10,6725255
59	97808.71	469791.00	480316,13	9.9903775	10,6719047
58	97802,65	469120.83	479660.66	9.9903506	10,6712847
57	97796.58	468452.48	479007.02	9.9903237	10,6706655
56	97790.50	467785.95	478355.20	9.9902967	10,6700472
55	97784.41	467121.24	477705.19	9.9902697	10,6694296
54	97778.32	466458.32	477056.99	9.9902426	10,6688128
53	97772.22	465797.21	476410,58	9.9902155	10,6681969
52	97766.11	465137.88	475765.96	9.9901883	10,6675817
51	97759.99	464480.34	475123.12	9.9901612	10,6669673
50	97753.86	463824.57	474482.06	9.9901339	10,6663537
49	97747.73	463170.56	473842.77	9.9901067	10,6657409
48	97741.59	462518.32	473205.23	9.9900794	10,6651289
47	97735.44	461867.83	472569.45	9.9900521	10,6645177
46	97729.28	461219.08	471935.42	9.9900247	10,6639073
45	97723.11	460572.07	471303.13	9.9899973	10,6632976
44	97716.93	459926.80	470672.56	9.9899698	10,6626887
43	97710.75	459283.25	470043.72	9.9899423	10,6620806
42	97704.56	458641.41	469416.60	9.9899148	10,6614733
41	97698.36	458001.29	468791.19	9.9898873	10,6608667
40	97692.15	457362.87	468167.48	9.9898597	10,6602609
39	97685.93	456726.14	467545.48	9.9898320	10,6596559
38	97679.70	456091.11	466925.16	9.9898043	10,6590516
37	97673.47	455457.76	466306.52	9.9897766	10,6584481
36	97667.23	454826.08	465689.56	9.9897489	10,6578454
35	97660.98	454196.08	465074.27	9.9897211	10,6572434
34	97654.72	453567.73	464460.64	9.9896932	10,6566422
33	97648.45	452941.05	463848.67	9.9896654	10,6560417
32	97642.17	452316.01	463238.35	9.9896374	10,6554420
31	97635.89	451692.61	462629.67	9.9896095	10,6548430
30	97629.60	451070.85	462022.63	9.9895815	10,6542448

12 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tan
30	21643,96	22169,47	102427.95	9.3353368	9.3457552
31	21672,36	22199,99	102434.56	9.3359062	9.3463527
32	21700,76	22230,51	102441.18	9.3364749	9.3469494
33	21729,15	22261,04	102447.81	9.3370428	9.3475454
34	21757,54	22291,57	102454.45	9.3376099	9.3481407
35	21785,93	22322,11	102461.10	9.3381762	9.3487352
36	21814,32	22352,65	102467.76	9.3387418	9.3493290
37	21842,71	22383,19	102474.43	9.3393065	9.3499220
38	21871,10	22413,74	102481.11	9.3398706	9.3505143
39	21899,48	22444,29	102487.80	9.3404338	9.3511059
40	21927,86	22474,85	102494.49	9.3409963	9.3516968
41	21956,24	22505,41	102501.19	9.3415580	9.3522869
42	21984.62	22535,97	102507.90	9.3421190	9.3528763
43	22013,00	22566,54	102514.62	9.3426792	9.3534650
44	22041.37	22597,11	102521.35	9.3432386	9.3540530
45	22069,74	22627,69	102528.09	9.3437973	9.3546402
46	22098.11	22658,27	102534.84	9.3443552	9.3552267
47	22126,48	22688,85	102541.60	9.3449124	9.3558126
48	22154,85	22719,44	102548.37	9.3454688	9.3563977
49	22183,21	22750,03	102555.15	9.3460245	9.3569821
50	22211,58	22780,63	102561.94	9.3465794	9.3575658
51	22239,94	22811,23	102568.74	9.3471336	9.3581487
52	22268,30	22841,83	102575.55	9.3476870	9.3587310
53	22296,66	22872,44	102582.37	9.3482397	9.3593126
54	22325.01	22903,05	102589.20	9.3487917	9.3598935
55	22353,37	22933,67	102596.04	9.3493429	9.3604736
56	22381,72	22964,29	102602.89	9.3498934	9.3610531
57	22410,07	22994,92	102609.75	9.3504432	9.3616319
58	22438,41	23025,55	102616.62	9.3509922	9.3622100
59	22466,76	23056,18	102623.50	9.3515405	9.3627874
60	22495,11	23086,82	102630.39	9.3520880	9.3333641

77 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
30	97629,60	451070,85	462022,63	9.9895815	10,6542448
29	97623,30	450450,72	461417,22	9.9895535	10,6536473
28	97616,99	449832,21	460813,43	9.9895254	10,6530506
27	97610,67	449215,32	460211,26	9.9894973	10,6524546
26	97604,35	448600,04	459610,70	9.9894692	10,6518593
25	97598,02	447986,36	459011,74	9.9894410	10,6512648
24	97591,68	447374,28	458414,39	9.9894128	10,6506710
23	97585,33	446763,79	457818,62	9.9893845	10,6500780
22	97578,97	446154,89	457224,44	9.9893562	10,6494857
21	97572,60	445547,56	456631,83	9.9893279	10,6488941
20	97566,23	444941,81	456040,80	9.9892995	10,6483032
19	97559,85	444337,62	455451,34	9.9892711	10,6477131
18	97553,46	443734,99	454863,44	9.9892427	10,6471237
17	97547,06	443133,92	454277,09	9.9892142	10,6465350
16	97540,65	442534,39	453692,29	9.9891856	10,6459470
15	97534,23	441936,41	453109,03	9.9891571	10,6453598
14	97527,81	441339,96	452527,30	9.9891285	10,6447733
13	97521,38	440745,04	451947,11	9.9890998	10,6441874
12	97514.94	440151,64	451368,44	9.9890711	19,6436023
11	97508,49	439559,76	450791,29	9.9890424	10,6430179
10	97502,03	438969,40	450215,65	9.9890137	10,6424342
9	97495,56	438380,54	449641,52	9.9889849	10,6418513
8	97489,09	437793,17	449068,89	9.9889560	10,6412690
7	97482,61	437207,31	448497,75	9.9889271	10,6406874
6	97476,12	436622,93	447928,10	9.9888982	10,6401065
5	97469,62	436040,03	447359,93	9.9888693	10,6395264
4	97463,11	435458,61	446793,24	9.9888403	10,6389469
3	97456,60	434878,66	446228,03	9.9888113	10,6383681
2	97450,08	434300,18	445664,28	9.9887822	10,6377900
1	97443,55	433723,16	445101,98	9.9887531	10,6372126
0	97437,01	433147,59	444541,35	9.9887239	10,6366359

13 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	LogTang
0	22495,11	23086,82	102630.39	9.3520880	9.3633641
1	22523,45	23117,46	102637,29	9.3526349	9.3639401
2	22551,79	23148,11	102644.20	9.3531810	9.3645155
3	22580.13	23178,76	102651.12	9.3537264	9.3650901
4	22608,46	23209,41	102658.05	9.3542710	9.3656641
5	22636,80	23240,07	102664.99	9.3548150	9.3662374
6	22665,13	23270,73	102671.94	9.3553582	9.3668100
7	22693,46	23301,40	102678.90	9.3559007	9.3673819
8	22721,79	23332,07	102685.87	9.3564426	9.3679532
9	22750.12	23362,74	102692.84	9.3569836	9.3685238
10	22778,44	23393,42	102699.82	9.3575240	9.3690937
11	22806,77	23424,10	102706.81	9.3580637	9.3696629
12	22835,09	23454,79	102713.81	9.3586027	9.3702315
13	22863,41	23485,48	102720.82	9.3591409	9.3707994
14	22891,72	23516,17	102727.84	9.3596785	9.3713667
15	22920,04	23546,87	102734.87	9.3602154	9.3719333
16	22948,35	23577,58	102741.91	9.3607515	9.3724992
17	22976,66	23608,29	102748.96	9.3612870	9.3730645
18	23004.97	23639.00	102756.02	9.3618217	9.3736291
19	23033,28	23669,72	102763.09	9.3623558	9.3741930
20	23061,59	23700,44	102770.17	9.3628892	9.3747563
21	23089.89	23731,16	102777.26	9.3634219	9.3753190
22	23118,19	23761,89	102784.36	9.3639539	9.3758810
23	23146,49	23792,62	102791.47	9.3644852	9.3764423
24	23174.79	23823.36	102798.59	9.3650158	9.3770030
25	23203,09	23854,10	102805.72	9.3655458	9.3775631
26	23231,38	23884,85	102812,86	9.3660750	9.3781225
27	23259.67	23915,60	102820,01	9.3666036	9.3786813
28	23287,96	23946,35	102827.17	9.3671315	9.3792394
29	23316,25	23977,11	102834.34	9.3676587	9.3797969
30	23344,54	24007,87	102841.52	9.3681853	9.3803537

76 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tang*
60	97437.01	433147.59	444541.15	9.9887239	10,6366359
59	97430,46	432573.47	443981,76	9.9886947	10,6360599
58	97423.90	432000,79	443423,82	9.9886655	10,6354845
57	97417.34	431429.55	442867.31	9.9886363	10,6349099
56	97410.77	430859.74	442312.24	9.9886070	10,6343359
55	97404.19	430291,36	441758.59	9.9885776	10,6337626
54	97397.60	429724.40	441206,37	9.9885482	10,6331900
53	97391,00	429158.85	440655.56	9.9885188	10,6326181
52	97384.39	428594.72	440106,16	9.9884894	10,6320468
51	97377.78	428031,99	439558.17	9.9884599	10,6314762
50	97371.16	427470,66	439011.58	9.9884303	10,6309063
49	97364.53	426910.72	438466.38	9.9884008	10,6303371
48	97357.89	426352,18	437922.57	9.9883712	10,6297685
47	97351,24	425795,01	437380.15	9.9883415	10,6292006
46	97344.58	425239.23	436839.10	9.9883118	10,6286333
45	97337.92	424684,82	436299.43	9.9882821	10,6280667
44	97331,25	424131.77	435761.13	9.9882523	10,6275008
43	97324.57	423580,09	435224.19	9.9882225	10,6269355
42	97317.88	423029.77	434688,61	9.9881927	10,6263709
41	97311.18	422480,80	434154.38	9.9881628	10,6258070
40	97304,48	421933.18	433621.50	9.9881329	10,6252437
39	97297.77	421386,90	433089.96	9.9881029	10,6246810
38	97291,05	420841,96	432559.77	9.9880729	10,6241190
37	97284.32	420298.35	432030,90	9.9880429	10,6235577
36	97277.58	419756,06	431503.36	9.9880128	10,6229970
35	97270,84	419215,10	430977.15	9.9879827	10,6224369
34	97264,09	418675.46	430452,25	9.9879525	10,6218775
33	97257.33	418137.13	429928,67	9.9879223	10,6213187
32	97250,56	417600,11	429406,40	9.9878921	10,6207606
31	97243.78	417064.40	428885.43	9.9878618	10,6202031
30	97236,99	416529.98	428365.76	9.9878315	10,6296463

13 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	LogTang
30	23344,54	24007,87	102841.52	9.3681853	9.3803537
31	23372,82	24038,64	102848.71	9,3687111	9.3809100
32	23401,10	24069,41	102855.91	9,3692363	9.3814655
33	23429,38	24100,19	102863.12	9,3697608	9.3820205
34	23457,66	24130,97	102870.34	9,3702847	9.3825748
35	23485,94	24161,76	102877.57	9,3708079	9.3831285
36	23514,21	24192,55	102884.81	9,3713304	9.3836816
37	23542,48	24223,34	102892.06	9,3718523	9.3842340
38	23570.75	24254,14	102899.32	9,3723735	9.3847858
39	23599,02	24284,94	102906.58	9,3728940	9.3853370
40	23627,29	24315,75	102913.85	9,3734139	9.3858876
41	23655,55	24346,56	102921.13	9,3739331	9.3864376
42	23683,81	24377,37	102928.42	9,3744517	9.3869869
43	23712,07	24408,19	102935.72	9,3749696	9.3875356
44	23740,33	24439,01	102943.03	9,3754868	9.3880837
45	23768,59	24469,84	102950.35	9,3760034	9.3886312
46	23796,84	24500,67	102957.68	9,3765194	9.3891781
47	23825,10	24531,51	102965.02	9,3770347	9.3897244
48	23853,35	24562,35	102972.37	9,3775493	9.3902700
49	23881,59	24593,20	102979.73	9,3780633	9.3908151
50	23909,84	24624,05	102987.10	9,3785767	9.3913595
51	23938,08	24654,91	102994.48	9,3790894	9.3919034
52	23966,33	24685,77	103001.87	9,3796015	9.3924466
53	23994,57	24716,63	103009.27	9,3801129	9.3929893
54	24022,80	24747,50	103016.68	9,3806237	9.3935313
55	24051,04	24778,37	103024.10	9,3811339	9.3940727
56	24079,27	24809,25	103031.53	9,3816434	9.3946136
57	24107,51	24840,13	103038.97	9,3821523	9.3951538
58	24135,74	24871,02	103046.42	9,3826605	9.3956935
59	24163,96	24901,91	103053.88	9,3831682	9.3962326
60	24192,19	24932,80	103061.35	9,3836752	9.3967711

76 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tang*
30	97236,99	416529,98	428365,76	9,9878315	10,6196463
29	97230,19	415996,85	427847,38	9,9878012	10,6190900
28	97223,39	415465,01	427330,29	9,9877708	10,6185345
27	97216,58	414934.46	426814.49	9,9877404	10,6179795
26	97209,76	414405,19	426299,96	9,9877099	10,6174252
25	97202,93	413877,19	425786,71	9,9876794	10,6168715
24	97196,09	413350,46	425274,74	9,9876488	10,6163184
23	97189,25	412824,99	424764,02	9,9876183	10,6157660
22	97182,40	412300,79	424254,57	9,9875876	10,6152142
21	97175,54	411777,84	423746,37	9,9875570	10,6146630
20	97168,67	411256,14	423239,43	9,9875263	10,6141124
19	97161,79	410735,69	422733,73	9,9874955	10,6135624
18	97154,91	410216,49	422229,28	9,9874648	10,6130131
17	97148,02	409698,52	421726,06	9,9874339	10,6124664
16	97141,12	409181,78	421224,08	9,9874031	10,6119163
15	97134,21	408666,27	420723,33	9.9873722	10,6113688
14	97127,29	408151,99	420223,80	9,9873413	10,6108219
13	97120,36	407638,92	419725,49	9,9873103	10,6102756
12	97113,43	407127,07	419228,40	9,9872793	10,6097300
11	97106,49	406616,43	418732,52	9,9872482	10,6091849
10	97099,54	406107,00	418237,85	9,9872171	10,6086405
9	97092,58	405598.77	417744,38	9,9871860	10,6080966
8	97085,61	405091.74	417252,10	9,9871549	10,6075534
7	97078,63	404585,90	416761,02	9,9871236	10,6070107
6	97071,65	404081,25	416271,14	9,9870924	10,6064687
5	97064,66	403577,79	415782,43	9,9870611	10,6059273
4	97057,66	403075,50	415294.91	9,9870298	10,6053864
3	97050,65	402574,40	414808,56	9,9869984	10,6048462
2	97043,63	402074,46	414323,39	9,9869670	10,6043065
1	97036.60	401575,70	413839,39	9,9869356	10,6037674
0	97029,57	401078,09	413356,55	9,9869041	10,6032289

14 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tan
0	24192.19	24932,80	103061.35	9.3836752	9.3967711
1	24220,41	24963.70	103068.83	9.3841815	9.3973089
2	24248,63	24994,60	103076.32	9.3846873	9.3978463
3	24276,85	25025.51	103083.82	9.3851924	9.3983830
4	24305,07	25056,42	103091.33	9.3856969	9.3989191
5	24333,29	25087.34	103098.85	9.3862008	9.3994547
6	24361,50	25118,26	103106.38	9.3867040	9.3999896
7	24389,71	25149.19	103113.92	9.3872067	9.4005240
8	24417,92	25180,12	103121.47	9.3877087	9.4010578
9	24446,13	25211.06	103129.03	9.3882101	9.4015910
10	24474,33	25242,00	103136.60	9.3887109	9.4021237
11	24502,54	25272,94	103144.18	9.3892111	9.4026558
12	24530,74	25303,89	103151.77	9.3897106	9.4031873
13	24558,94	25334.84	103159.36	9.3902096	9.4037182
14	24587,13	25365,80	103166.97	9.3907079	9.4042486
15	24615,33	25396.76	103174.59	9.3912057	9.4047784
16	24643,52	25427.73	103182,22	9.3917028	9.4053076
17	24671,71	25458,70	103189.85	9.3921993	9.4058363
18	24699.90	25489.68	103197.50	9.3926952	9.4063644
19	24728,09	25520,66	103205.16	9.3931905	9.4068919
20	24756,27	25551,65	103212,82	9.3936852	9.4074189
21	24784.45	25582,64	103220,50	9.3941794	9.4079453
22	24812,63	25613.63	103228.18	9.3946729	9.4084712
23	24840,81	25644.63	103235.88	9.3951658	9.4089965
24	24868.99	25675.63	103243.59	9.3956581	9.4095212
25	24897,16	25706,64	103251.30	9.3961499	9.4100454
26	24925,33	25737.66	103259.03	9.3966410	9.4105690
27	24953.50	25768.68	103266.76	9.3971315	9.4110921
28	24981,67	25799.70	103274.51	9.3976215	9.4116146
29	25009,84	25830,73	103282,27	9.3981109	9.4121366
30	25038,00	25861.76	103290.03	9.3985996	9.4126581

75 Grad.

Minut	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
0	97029,57	401078,09	413356,55	9,9869041	10,6032289
9	97022,53	400581,65	412874,87	9,9868726	10,6026911
8	97015,48	400086,36	412394,35	9,9868410	10,6021537
7	97008,42	399592,23	411914,98	9,9868094	10,6016170
6	97001,35	399099,24	411436,75	9,9867778	10,6010809
5	96994,28	398607,39	410959,67	9,9867461	10,6005453
4	96987,20	398116,69	410483,74	9,9867144	10,6000104
3	96980,11	397627,12	410008,93	9,9866827	10,5994760
2	96973,01	397138,68	409535,26	9,9866509	10,5989422
1	96965,90	396651,37	409062,72	9,9866191	10,5984090
0	96958,79	396165,18	408591,30	9,9865872	10,5978763
49	96951,67	395680,11	408121,00	9,9865553	10,5973442
48	96944,54	395196,15	407651,81	9,9865233	10,5968127
47	96937,40	394713,31	407183,74	9,9864913	10,5962818
46	96930,25	394231,57	406716,77	9,9864593	10,5957514
45	96923,09	393750,94	406250,91	9,9864273	10,5952216
44	96915,92	393271,41	405786,15	9,9863952	10,5946924
43	96908,75	392792,97	405322,49	9,9863630	10,5941637
42	96901,57	392315,63	404859,92	9,9863308	10,5936356
41	96894,38	391839,37	404398,44	9.9862986	10,5931081
40	96887,18	391364,20	403938,04	9,9862663	10,5925811
39	96879,98	390890,11	403478,72	9,9862340	10,5920547
38	96872,77	390417,10	403020,48	9,9862017	10,5915288
37	96865,55	389945,16	402563,32	9,9861693	10,5910035
36	96858,32	389474,29	402107,22	9,9861369	10,5904788
35	96851,08	389004,48	401652,19	9,9861045	10,5899546
34	96843,83	388535,74	401198,23	9,9860720	10,5894310
33	96836,57	388068,05	400745,32	9,9860394	10,5889079
32	96829.31	387601,42	400293,47	9,9860069	10,5883854
31	96822,04	387135,84	399842,67	9,9859742	10,5878634
30	96814,76	386671,31	399392,92	9,9859416	10,5873419

14 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Ta*
30	25038,00	25861,76	103290,03	9.3985996	9,412658
31	25066,16	25892,80	103297.81	9.3990878	9,4131789
32	25094,32	25923,84	103305.59	9.3995754	9,413699
33	25122,48	25954,88	103313.39	9.4000625	9,4142191
34	25150,63	25985,93	103321.19	9.4005489	9,4147383
35	25178,79	26016,99	103329.01	9.4010348	9,415257
36	25206,94	26048,05	103336.83	9.4015201	9,4157752
37	25235,08	26079,11	103344.67	9.4020048	9,4162928
38	25263,23	26110,18	103352.51	9.4024889	9.4168099
39	25291,37	26141,26	103360.37	9.4029734	9.4173265
40	25319.52	26172,34	103368,23	9.4034554	9,4178425
41	25347,66	26203,42	103376.11	9.4039378	9,4183580
42	25375,79	26234,51	103383.99	9.4044196	9,4188729
43	25403,93	26265,60	103391.88	9.4049009	9,4193874
44	25432,06	26296,70	103399.79	9.4053816	9,4199013
45	25460,19	26327,80	103407.70	9.4058617	9,4204146
46	25488,32	26358,91	103415.63	9.4063413	9,4209275
47	25516,45	26390,02	103423.56	9.4068203	9,4214398
48	25544,58	26421,14	103431.51	9,4072987	9,4219515
49	25572,70	26452,26	103439.46	9,4077766	9,4224628
50	25600,82	26483,39	103447.43	9.4082539	9,4229735
51	25628,94	26514,52	103455.40	9.4087306	9,4234838
52	25657,05	26545,66	103463.38	9.4092068	9,4239935
53	25685,17	26576,80	103471.38	9.4096824	9,4245026
54	25713,28	26607,94	103479.38	9.4101575	9.4250113
55	25741,39	26639,09	103487.40	9.4106320	9,4255194
56	25769,50	26670,25	103495.42	9.4111059	9,4260271
57	25797.60	26701,41	103503.46	9.4115793	9,4265342
58	25825,70	26732,57	103511.50	9.4120522	9,4270408
59	25853,81	26763,74	103519.55	9.4125245	9,4275469
60	25881,90	26794,92	103527.62	9.4129962	9,4280525

75 Grad.

	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
0	96814.76	386671,31	399392,92	9.9859416	10,5873419
9	96807,47	386207,82	398944,21	9.9859089	10,5868211
8	96800,18	385745,37	398496,54	9.9858762	10,5863007
7	96792.88	385283,96	398049,91	9.9858434	10,5857809
6	96785,57	384823,58	397604,31	9.9858106	10,5852617
5	96778,25	384364.24	397159,75	9.9857777	10,5847430
4	96770,92	383905,91	396716,21	9.9857449	10,5842248
3	96763,58	383448,61	396273,69	9.9857119	10,5837072
2	96756,23	382992,33	395832,19	9.9856790	10,5831901
1	96748,88	382537,07	395391,71	9.9856460	10,5826735
0	96741,52	382082,81	394952.24	9.9856129	10,5821575
9	96734,15	381629,57	394513,79	9.9855798	10,5816420
8	96726,77	381177,33	394076,33	9.9855467	10,5811271
7	96719,38	380726,06	393639,88	9.9855135	10,5806126
6	96711,99	380275,85	393204,43	9.9854803	10,5800987
5	96704,59	379826,61	392769,97	9.9854471	10,5795854
4	96697,18	379378,35	392336,51	9.9854138	10,5790725
3	96689,76	378931,09	391904,03	9.9853805	10,5785602
2	96682,33	378484,81	391472,54	9.9853471	10,5780485
11	96674,90	378039,51	391042,03	9.9853138	10,5775372
10	96667,46	377595,19	390612,50	9.9852803	10,5770265
9	96660,01	377151,85	390183,95	9.9852468	10,5765162
8	96652,55	376709,47	389756,37	9.9852133	10,5760065
7	96645,08	376268,07	389329,76	9.9851798	10.5754974
6	96637,60	375827,63	388904,11	9.9851462	10.5749887
5	96630,12	375388,15	388479,43	9.9851125	10,5744806
4	96622,63	374947,63	388055,70	9.9850789	10,5739729
3	96615,13	374512,07	387632,93	9.9850452	10,5734658
2	96607,62	374075,46	387211,12	9.9850114	10.5729592
1	96600,10	373639,80	386790,25	9.9849776	10,5724581
0	96592,58	373205,08	386370,33	9.9849438	10,5719475

15 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Ta*
0	25881,90	26794,92	103527,62	9.4129962	9.428052
1	25910.00	26826,10	103535,69	9.4134674	9.428557
2	25938,10	26857,28	103543,78	9.4139381	9.429062
3	25966,19	26888,47	103551,87	9.4144082	9.429566
4	25994,28	26919,67	103559,98	9.4148778	9.430069
5	26022,37	26950,87	103568,09	9.4153468	9.430572
6	26050,45	26982,07	103576,21	9.4158152	9.431075
7	26078,53	27013,28	103584.35	9.4162832	9.431577
8	26106,61	27044,49	103592,49	9.4167506	9.432078
9	26134.69	27075,71	103600,65	9.4172174	9.432579
10	26162,77	27106,93	103608,81	9.4176837	9.433080
11	26190,85	27138,16	103616,99	9.4181495	9.433580
12	26218,92	27169,40	103625,17	9.4186148	9.434080
13	26246,99	27200,64	103633,37	9.4190795	9.434579
14	26275,06	27231,88	103641,57	9.4195436	9.435077
15	26303,12	27263,13	103649,79	9.4200073	9.435575
16	26331,18	27294,38	103658,01	9.4204704	9.4360733
17	26359,24	27325,64	103666,25	9.4209330	9.4365704
18	26387,30	27356,90	103674,49	9.4213950	9.4370670
19	26415,36	27388,17	103682,75	9.4218566	9.4375631
20	26443,42	27419,44	103691,01	9.4223176	9.4380587
21	26471,47	27450,72	103699,29	9.4227780	9.4385538
22	26499,52	27482,01	103707,57	9.4232380	9.4390485
23	26527,57	27513,30	103715,87	9.4236974	9.4395426
24	26555,61	27544,59	103724,17	9.4241563	9.4400363
25	26583,65	27575,89	103732,49	9.4246147	9.4405295
26	26611,69	27607,19	103740.82	9.4250726	9.4410222
27	26639,73	27638,50	103749,15	9.4255299	9.4415145
28	26667,77	27669,81	103757,50	9.4259867	9.4420062
29	26695,81	27701,13	103765,85	9.4264430	9.4424975
30	26723,84	27732,45	103774,22	9.4268983	9.4429883

74 Grad.

Minut	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
0	96592,58	373205,08	386370,33	9.9849438	10,5719475
9	96585,05	372771,31	385951,35	9.9849099	10.5714425
8	96577,51	372338,47	385533,32	9.9848760	10,5709379
7	96569.96	371906,58	385116,22	9.9848420	10,5704339
6	96562,40	371475,61	384700,05	9.9848081	10,5699303
5	96554.83	371045,58	384284,82	9.9847740	10,5694273
4	96547.26	370616,48	383870,51	9.9847400	10,5689247
3	96539,68	370188,30	383457,13	9.9847059	10,5684227
2	96532,09	369761,03	383044,67	9.9846717	10,5679211
1	96524,49	369334,69	382633,13	9.9846375	10,5674201
0	96516,88	368909,27	382222,51	9.9846033	10,5669196
9	96509,27	368484,75	381812,80	9.9845690	10,5664195
8	96501,65	368061,15	381403,99	9.9845347	10,5659200
7	96494,02	367638,45	380996,10	9.9845004	10,5654209
6	96486,38	367216,65	380589,11	9.9844660	10,5649224
5	96478.73	366795,75	380183,01	9.9844316	10,5644243
4	96471,07	366375,75	379777.82	9.9843971	10,5639267
3	96463,41	365956,65	379373.52	9.9843626	10,5634296
2	96455.74	365538,44	378970,11	9.9843281	10,5629330
1	96448,06	365121,11	378567,60	9.9842935	10,5624369
0	96440,37	364704,67	378165,96	9.9842589	10,5619413
9	96432,67	364289,11	377765,22	9.9842242	10,5614462
8	96424,97	363874,44	377365,35	9.9841895	10,5609515
7	96417,26	363460,64	376966,36	9.9841548	10,5604574
6	96409,54	363047,71	376568,24	9.9841200	10,5599637
35	96401,81	362635,65	376171,00	9.9840852	10,5594705
34	96394,07	362224,47	375774,62	9.9840503	10.5589778
33	96386,33	361814,15	375379,11	9.9840154	10.5584855
32	96378,58	361404,69	374984,47	9.9839805	10,5579938
31	96370,82	360996,09	374590,68	9.9839455	10,5575025
30	96363,05	360588,35	374197,75	9.9839105	10,5570117

15 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Ta
30	26723,84	27732,45	103774,22	9.4268988	9.442988
31	26751,87	27763,78	103782,60	9.4273541	9.443478
32	26779,89	27795,12	103790,98	9.4278089	9.443968
33	26807,92	27826,46	103799,38	9.4282631	9.444457
34	26835,94	27857,80	103807,79	9.4287169	9.444946
35	26863,96	27889,15	103816,21	9.4291701	9.445435
36	26891,98	27920,50	103824,63	9.4296228	9.445923
37	26920.00	27951,86	103833,07	9.4300750	9.446410
38	26948,01	27983,22	103841,52	9.4305267	9.446897
39	26976,02	28014,59	103649,98	9.4309779	9.447384
40	27004,03	28045,97	103858,44	9.4314286	9.447870
41	27032,04	28077,35	103866,92	9.4318788	9.4483561
42	27060,04	28108,73	103875,41	9.4323285	9.4488413
43	27088,05	28140,12	103883,91	9.4327777	9.449326
44	27116,05	28171,52	103892,42	9.4332264	9.4498102
45	27144,04	28202,92	103900,94	9.4336746	9.450294
46	27172,04	28234,32	103909,47	9.4341223	9.4507774
47	27200,03	28265,73	103918,00	9.4345694	9.4512602
48	27228,02	28297,15	103926,55	9.4350161	9.4517427
49	27256,01	28328,57	103935,11	9.4354623	9.4522246
50	27284,00	28359,99	103943,68	9.4359080	9.4527061
51	27311,98	28391,42	103952,26	9.4363532	9.4531872
52	27339,96	28422,86	103960,85	9.4367980	9.4536678
53	27367,94	28454,30	103969,45	9.4372422	9.4541479
54	27395,92	28485,75	103978.06	9.4376859	9.4546276
55	27423,90	28517,20	103986.69	9.4381292	9.4551069
56	27451,87	28548,66	103995,32	9.4385719	9.4555857
57	27479,84	28580,12	104003,96	9.4390142	9.456064
58	27507,81	28611,59	104012,61	9.4394560	9.4565420
59	27535,78	28643,06	104021,27	9.4398973	9.4570194
60	27563,74	28674,54	104029,94	9.4403381	9.4574964

74 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
30	96363,05	360588,35	374197,75	9,9839105	10,5570117
29	96355,27	360181,46	373805,68	9,9838755	10,5565214
28	96347,48	359775,43	373414,46	9,9838404	10,5560315
27	96339,69	359370,24	373024,09	9,9838052	10,5555421
26	96331,89	358965,90	372634,57	9,9837701	10,5550532
25	96324,08	358562,41	372245,89	9,9837348	10,5545648
24	96316,26	358159,75	371858,05	9,9836996	10,5540768
23	96308,43	357757,94	371471,05	9,9836643	10,5535893
22	96300,59	357356,96	371084,89	9,9836290	10,5531022
21	96292,75	356956,81	370699,56	9,9835936	10,5526157
20	96284,90	356557,49	370315,06	9,9835582	10,5521296
19	96277,04	356159,00	369931,39	9,9835227	10,5516439
18	96269,17	355761,33	369548,54	9,9834872	10,5511587
17	96261,30	355364,49	369166,52	9,9834517	10,5506740
16	96253,42	354968,46	368785,32	9,9834161	10,5501898
15	96245,53	354573,25	368404,93	9,9833805	10,5497060
14	96237,63	354178,86	368025,36	9,9833449	10,5492226
13	96229,72	353785,28	367646,60	9,9833092	10,5487398
12	96221.80	353392,51	367268,65	9.9832735	10,5482573
11	96213,87	353000,54	366891,51	9,9832377	10,5477754
10	96205,94	352609,38	366515,18	9,9832019	10,5472939
9	96198,00	352219,02	366139,64	9,9831661	10,5468128
8	96190,05	351829,46	365764,91	9,9831302	10,5463322
7	96182,09	351440,70	365390,97	9,9830942	10,5458521
6	96174,13	351052.73	365017,83	9,9830583	10,5453724
5	96166,16	350665,55	364645,48	9,9830223	10,5448931
4	96158,18	350279,16	364273,92	9,9829862	10,5444143
3	96150,19	349893,56	363903,15	9,9829501	10,5439359
2	96142,19	349508,74	363533,16	9,9829140	10,5434580
1	96134,18	349124,70	363163,95	9,9828778	10,5429806
0	96126,17	348741,44	362795,53	9,9828416	10,5425036

16 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tan
0	27563.74	28674.54	104029.94	9.4403381	9.4574964
1	27591.70	28706,02	104038,63	9.4407784	9,4579730
2	27619,65	28737.51	104047.32	9.4412182	9,4584491
3	27647,61	28769.00	104056,02	9.4416576	9,4589248
4	27675,56	28800,50	104064,73	9.4420965	9,4594001
5	27703,52	28832,01	104073,46	9.4425349	9,4598749
6	27731.47	28863,52	104082,19	9.4429728	9,4603492
7	27759,41	28895,03	104090,94	9.4434103	9,4608232
8	27787,36	28926,55	104099.69	9.4438472	9,4612967
9	27815,30	28958,08	104108,45	9.4442837	9,4617697
10	27843.24	28989,61	104117,23	9.4447197	9,4622423
11	27871,18	29021,14	104126,01	9.4451553	9,4627145
12	27899.11	29052,68	104134,81	9.4455904	9,4631863
13	27927.04	29084,23	104143.62	9.4460250	9,4636576
14	27954,97	29115,78	104152,43	9.4464591	9,4641285
15	27982,90	29147,34	104161,26	9.4468927	9,4645990
16	28010,83	29178,90	104170,09	9.4473259	9,4650690
17	28038,75	29210,47	104178,94	9.4477586	9,4655386
18	28066.67	29242,05	104187,80	9.4481909	9,4660078
19	28094,59	29273,63	104196,67	9.4486227	9,4664765
20	28122,51	29305,21	104205.54	9.4490540	9,4669448
21	28150,42	29336,80	104214,43	9.4494849	9,4674127
22	28178,33	29368,39	104223,33	9.4499153	9,4678802
23	28206,24	29399,99	104232,24	9.4503452	9,4683473
24	28234,15	29431,60	104241,16	9.4507747	9,4688139
25	28262,05	29463,21	104250,09	9.4512037	9,4692801
26	28289,95	29494,83	104259,03	9.4516322	9,4697459
27	28317,85	29526,45	104267.98	9.4520603	9,4702112
28	28345,75	29558,08	104276,94	9.4524879	9,4706762
29	28373,64	29589,71	104285,91	9.4529151	9,4711407
30	28401,53	29621,35	104294,89	9.4533418	9,4716048

73 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tang*
60	96126,17	348741,44	362795,53	9,9828416	10,5425036
59	96118,15	348358,96	362427,88	9,9828054	10,5420270
58	96110,12	347977,26	362061,01	9,9827691	10,5415509
57	96102,08	347596,32	361694,90	9,9827328	10,5410752
56	96094,03	347216,16	361329,57	9,9826964	10,5405999
55	96085,98	346836,76	360965,01	9,9826600	10,5401251
54	96077,92	346458,13	360601,21	9,9826236	10,5396508
53	96069,85	346080,26	360238,18	9,9825871	10,5391768
52	96061.77	345703.15	359875,90	9,9825506	10,5387033
51	96053,68	345326,79	359514,39	9,9825140	10,5382303
50	96045,58	344951,20	359153,63	9,9824774	10,5377577
49	96037,48	344576,35	358793,62	9,9824408	10,5372855
48	96029,37	344202,26	358434,37	9,9824041	10,5368137
47	96021,25	343828,91	358075,86	9,9823674	10,5363424
46	96013,12	343456,31	357718,10	9,9823306	10,5358715
45	96004,98	343084,46	357361,08	9,9822938	10,5354010
44	95996,84	342713,34	357004,81	9,9822569	10,5349310
43	95988,69	342342,97	356649,28	9,9822201	10,5344614
42	95980,53	341973,33	356294,48	9,9821831	10,5339922
41	95972,36	341604,43	355940,42	9.9821462	10,5335235
40	95964,18	341236,26	355587,10	9,9821092	10,5330552
39	95956,00	340868.82	355234,50	9,9820721	10,5325873
38	95947,81	340502,10	354882,63	9,9820351	10,5321198
37	95939,61	340136,12	354531.49	9,9819979	10,5316527
36	95931,40	339770,85	354181,07	9,9819608	10,5311861
35	95923,18	339406,31	353831,38	9,9819236	10,5307199
34	95914,95	339042,49	353482,40	9,9818863	10,5302541
33	95906,72	338679,38	353134,14	9,9818490	10,5297888
32	95898,48	338316,99	352786,60	9,9818117	10,5293238
31	95890,23	337955,31	352439,77	9,9817744	10,5288593
30	95881,97	337594,34	352093,65	9,9817370	10,5283952

16 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
30	28401,53	29621,35	104294,89	9.4533418	9.4716048
31	28429,42	29652,99	104303,88	9.4537681	9,4720685
32	28457,31	29684,64	104312,89	9.4541939	9,4725318
33	28485,20	29716,30	104321,90	9.4546192	9,4729947
34	28513,08	29747,96	104330,92	9.4550441	9,4734571
35	28540,96	29779,62	104339.95	9.4554686	9,4739192
36	28568,84	29811,29	104349,00	9.4558926	9,4743808
37	28596,71	29842,97	104358,05	9.4563161	9,4748421
38	28624,58	29874,65	104367,12	9.4567392	9,4753029
39	28652,45	29906,34	104376,19	9.4571618	9,4757633
40	28680,32	29938,03	104385,28	9.4575840	9,4762233
41	28708,19	29969,73	104394,37	9.4580058	9,4766829
42	28736.05	30001,44	104403,48	9.4584271	9,4771421
43	28763,91	30033,15	104412,59	9.4588480	9,4776009
44	28791,77	30064,86	104421,72	9.4592684	9,4780592
45	28819,63	30096,58	104430,86	9.4596884	9,4785172
46	28847,48	30128,31	104440,01	9.4601079	9,4789748
47	28875,33	30160,04	104449,17	9.4605270	9,4794319
48	28903,18	30191,78	104458,33	9.4609456	9,4798887
49	28931,03	30223,52	104467,51	9.4613638	9,4803451
50	28958,87	30255,27	104476,70	9.4617816	9,4808011
51	28986,71	30287,03	104485,90	9.4621989	9,4812566
52	29014,55	30318,79	104495.11	9.4626158	9,4817118
53	29042,39	30350,55	104504,33	9.4630323	9,4821666
54	29070,22	30382,32	104513,57	9.4634483	9,4826210
55	29098,05	30414,10	104522,81	9.4638639	9,4830750
56	29125,88	30445,88	104532,06	9.4642790	9,4835286
57	29153,71	30477,67	104541,32	9.4646938	9,4839818
58	29181,53	30509,46	104550,60	9.4651081	9,4844346
59	29209.35	30541,26	104559,88	9.4655219	9.4848870
60	2923717	30573,07	104569,18	9.4659353	9,4853390

73 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
30	95881.97	337594.34	352093.65	9.9817370	10,5283952
29	95873,70	337234,08	351748,24	9.9816995	10,5279315
28	95865.43	336874.53	351403.54	9.9816620	10,5274682
27	95857.15	336515,68	351059.54	9.9816245	10,5270053
26	95848,86	336157.53	350716,25	9.9815870	10,5265428
25	95840,56	335800,08	350373,65	9.9815494	10,5260808
24	95832,25	335443.33	350031.75	9.9815117	10,5256192
23	95823.94	335087,28	349690,55	9.9814740	10,5251579
22	95815,62	334731,91	349350,04	9.9814363	10,5246971
21	95807.29	334377.24	349010,23	9.9813986	10,5242367
20	95798,95	334023,26	348671,10	9.9813608	10,5237767
19	95790,60	333669,97	348332,67	9.9813229	10,5233171
18	95782,25	333317.36	347994.92	9.9812850	10,5228579
17	95773,89	332965.43	347657,85	9.9812471	10,5223991
16	95765,52	332614,19	347321,46	9.9812091	10,5219408
15	95757.14	332263.62	346985,76	9.9811711	10,5214828
14	95748.75	331913.73	346650,73	9.9811331	10,5210252
13	95740,35	331564.52	346316,37	9.9810950	10,5205681
12	95731.95	331215.98	345982.69	9.9810569	10,5201113
11	95723.54	330868,11	345649,69	9.9810187	10,5196549
10	95715,12	330520,91	345317,35	9.9809805	10,5191989
9	95706,69	330174.38	344985,68	9.9809423	10,5187434
8	95698,25	329828,51	344654,67	9.9809040	10,5182882
7	95689,81	329483,30	344324,33	9.9808657	10,5178334
6	95681.36	329138,76	343994,65	9.9808273	10,5173790
5	95672,90	328794.87	343665,63	9.9807889	10,5169250
4	95664,43	328451,64	343337,27	9.9807505	10,5164714
3	95655.95	328109.07	343009,56	9.9807120	10,5160182
2	95647.47	327767,15	342682,51	9.9806735	10,5155654
1	95638,98	327425,88	342356,11	9.9806349	10,5151130
0	95630,48	327085,26	342030,36	9.9805963	10,5146610

17 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*LogTang*
0	29237,17	30573,07	104569.18	9.4659353	9,4853390
1	29264,99	30604,88	104578.48	9.4663483	9,4857907
2	29292,80	30636,69	104587.80	9.4667609	9,4862419
3	29320,61	30668,51	104597.12	9.4671730	9,4866928
4	29348,42	30700,34	104606.46	9.4675848	9,4871433
5	29376,23	30732,18	104615.81	9.4679960	9,4875933
6	29404,03	30764,02	104625.16	9.4684069	9,4880430
7	29431.83	30795,86	104634.53	9.4688173	9,4884924
8	29459,63	30827,71	104643.91	9.4692273	9,4889413
9	29487,43	30859,57	104653.30	9.4696369	9,4893898
10	29515,22	30891,43	104662.70	9.4700461	9,4898380
11	29543,01	30923,30	104672.11	9.4704548	9,4902858
12	29570,80	30955,17	104681.53	9.4708631	9,4907332
13	29598,59	30987,05	104690.96	9.4712710	9,4911802
14	29626,38	31018,93	104700.40	9.4716785	9,4916269
15	29654,16	31050,82	104709.86	9.4720856	9,4920731
16	29681,94	31082,72	104719.32	9.4724922	9,4925190
17	29709,71	31114,62	104728.79	9.4728985	9,4929646
18	29737,49	31146,53	104738.28	9.4733043	9,4934097
19	29765,26	31178,44	104747.77	9.4737097	9,4938545
20	29793,03	31210,36	104757.28	9.4741146	9,4942988
21	29820,79	31242,29	104766.79	9.4745192	9,4947429
22	29848,56	31274,22	104776.32	9.4749234	9,4951865
23	29876,32	31306,16	104785.86	9.4753271	9,4956298
24	29904,08	31338,10	104795.40	9.4757304	9,4960727
25	29931,84	31370,05	104804.96	9.4761334	9,4965152
26	29959,59	31402,00	104814.53	9.4765359	9,4969574
27	29987,34	31433,96	104824.11	9.4769380	9,4973991
28	30015,09	31465,93	104833.70	9.4773396	9,4978406
29	30042,84	31497,90	104843.30	9.4777409	9,4982816
30	30070,58	31529,88	104852.91	9.4781418	9,4987223

72 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
60	95630.48	327085,26	342030,36	9.9805963	10,5146610
59	95621,97	326745,29	341705,26	9.9805577	10,5142093
58	95613.45	326405,96	341380,80	9.9805190	10,5137581
57	95604.92	326067.28	341056,99	9.9804803	10,5133072
56	95596.39	325729,24	340733.82	9.9804415	10,5128567
55	95587.85	325391.84	340411.30	9.9804027	10,5124067
54	95579.30	325055,08	340089.41	9.9803639	10.5119570
53	95570,74	324718.95	339768.16	9.9803250	10,5115076
52	95562,17	324383.46	339447.54	9.9802860	10.5110587
51	95553.60	324048.60	339127.55	9.9802471	10.5106102
50	95545,02	323714.38	338808.20	9.9802081	10.5101620
49	95536.43	323380.78	338489.48	9.9801690	10,5097142
48	95527.83	323047.80	338171.38	9.9801299	10,5092668
47	95519,22	322715.46	337853.91	9.9800908	10,5088198
46	95510,61	322383.73	337537.07	9.9800516	10,5083731
45	95501,99	322052,63	337220,84	9.9800124	10.5079269
44	95493,36	321722,15	336905,24	9.9799732	10,5074810
43	95484.72	321392,28	336590.26	9.9799339	10,5070354
42	95476,07	321063,04	336275.89	9.9798946	10,5065903
41	95467.42	320734.40	335962,14	9.9798552	10,5061455
40	95458.76	320406.38	335649.00	9.9798158	10,5057012
39	95450,09	320078.97	335336.47	9.9797764	10.5052571
38	95441.41	319752,17	335024.55	9.9797369	10.5048135
37	95432,72	319425.98	334713.24	9.9796973	10.5043702
36	95424.03	319100,39	334402.54	9.9796578	10,5039273
35	95415.33	318775.40	334092.44	9.9796182	10,5034848
34	95406.62	318451,02	333782.94	9.9795785	10,5030426
33	95397.90	318127.24	333474.05	9.9795388	10.5026009
32	95389.17	317804,06	333165.75	9.9794991	10,5021594
31	95380.43	317481.47	332858.05	9.9794593	10,5017184
30	95371,69	317159.48	332550.95	9.9794195	10,5012777

17 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	LogTang
30	30070,58	31529,88	104852.91	9.4781418	9.4987223
31	30098,32	31561,86	104862.53	9.4785423	9.4991626
32	30126,06	31593,85	104872,17	9.4789423	9.4996026
33	30153,80	31625,85	104881.81	9.4793420	9.5000422
34	30181,53	31657,85	104891.46	9.4797412	9.5004814
35	30209,26	31689,86	104901.13	9.4801401	9.5009203
36	30236.99	31721,87	104910.80	9.4805385	9.5013588
37	30264,71	31753,89	104920.49	9.4809366	9.5017969
38	30292,44	31785,91	104930.19	9.4813342	9.5022347
39	30320,16	31817,94	104939.89	9.4817315	9.5026721
40	30347,88	31849,98	104949.61	9.4821283	9.5031092
41	30375,59	31882,02	104959.34	9.4825248	9.5035459
42	30403,31	31914,07	104969.08	9.4829208	9.5039822
43	30431,02	31946,13	104978.83	9.4833165	9.5044182
44	30458.72	31978,19	104988.59	9.4837117	9.5048538
45	30486,43	32010,25	104998.36	9.4841066	9.5052891
46	30514,13	32042,32	105008,15	9.4845010	9.5057240
47	30541,83	32074,40	105017.94	9.4848951	9.5061586
48	30569,53	32106,49	105027.74	9.4852888	9.5065928
49	30597,23	32138,58	105037.56	9.4856820	9.5070267
50	30624,92	32170,67	105047.38	9.4860749	9.5074602
51	30652,61	32202,77	105057.22	9.4864674	9.5078933
52	30680,29	32234,88	105067.06	9.4868595	9.5083261
53	30707,98	32267,00	105076.92	9.4872512	9.5087586
54	30735,66	32299,12	105086.79	9.4876426	9.5091907
55	30763,34	32331,25	105096.67	9.4880335	9.5096224
56	30791,02	32363,38	105106,56	9.4884240	9.5100539
57	30818,69	32395,52	105116.46	9.4888142	9.5104849
58	30846,36	32427,66	105126.37	9.4892040	9.5109156
59	30874,03	32459,81	105136.29	9.4895934	9.5113460
60	30901,70	32491,97	105146.22	9.4899824	9.5117760

72 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log:Tang
30	95371,69	317159,48	332550,95	9.9794195	10,5012777
29	95362,94	316838,08	332244,44	9.9793796	10,5008374
28	95354,18	316517,28	331938,53	9.9793398	10,5003974
27	95345.41	316197,06	331633,20	9.9792998	10,4999578
26	95336,64	315877,44	331328,47	9.9792599	10,4995186
25	95327,86	315558,40	331024,32	9.9792198	10,4990797
24	95319,07	315239,94	330720,76	9.9791798	10,4986412
23	95310,27	314922,07	330417,78	9.9791397	10,4982031
22	95301,46	314604,78	330115,39	9.9790996	10,4977653
21	95292,64	314288,07	329813,57	9.9790594	10,4973279
20	95283,82	313971,94	329512,34	9.9790192	10,4968908
19	95274,99	313656,39	329211,68	9.9789789	10,4964541
18	95266,15	313341,41	328911,60	9.9789386	10,4960178
17	95257,30	313027,01	328612,09	9.9788983	10,4955818
16	95248,44	312713,17	328313,16	9.9788579	10,4951462
15	95239,58	312399,91	328014,79	9.9788175	10,4947109
14	95230,71	312087,22	327717,00	9.9787770	10,4942760
13	95221,83	311775,09	327419,77	9.9787365	10,4938414
12	95212,94	311463,53	327123,11	9.9786960	10,4934072
11	95204,04	311152,54	326827,02	9.9786554	10,4929733
10	95195,14	310842,10	326531,49	9.9786148	10,4925398
9	95186,23	310532,23	326236,52	9.9785741	10,4921067
8	95177,31	310222,91	325942,11	9.9785334	10,4916739
7	95168,38	309914,16	325648,25	9.9784927	10,4912414
6	95159,44	309605,96	325354,96	9.9784519	10,4908093
5	95150,49	309298,31	325062,22	9.9784111	10,4903776
4	95141,54	308991,22	324770,03	9.9783702	10,4899461
3	95132,58	308684,68	324478,40	9.9783293	10,4895151
2	95123,61	308378,69	324187,32	9.9782883	10,4890844
1	95114,63	308073,25	323896,78	9.9782474	10,4886540
0	95105,65	307768,35	323606,80	9.9782063	10,4882240

18 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
0	30901,70	32491,97	105146.22	9.4899824	9.5117760
1	30929,36	32524,13	105156.17	9.4903710	9.5122057
2	30957,02	32556,30	105166.12	9.4907592	9.5126351
3	30984,68	32588,48	105176.08	9.4911471	9.5130641
4	31012,34	32620,66	105186.06	9.4915345	9.5134927
5	31039,99	32652,85	105196.05	9.4919216	9.5139210
6	31067,64	32685,04	105206.04	9.4923083	9.514[illegible]490
7	31095,29	32717,24	105216.05	9.4926946	9.5147766
8	31122,94	32749,44	105226.07	9.4930806	9.5152039
9	31150,58	32781,65	105236.10	9.4934661	9.5156309
10	31178,22	32813,87	105246.14	9.4938513	9.5160575
11	31205,86	32846,10	105256.19	9.4942361	9.5164838
12	31233,49	32878,33	105266.25	9.4946205	9.5169097
13	31261,12	32910,56	105276.33	9.4950046	9.5173353
14	31288,75	32942,80	105286.41	9.4953883	9.5177606
15	31316,38	32975,05	105296.51	9.4957716	9.5181855
16	31344,00	33007,31	105306.61	9.4961545	9.5186101
17	31371,63	33039,57	105316.73	9.4965370	9.5190344
18	31399,25	33071,84	105326.86	9.4969192	9.5194583
19	31426,86	33104,11	105336.99	9.4973010	9.5198819
20	31454,48	33136,39	105347.14	9.4976824	9.5203052
21	31482,09	33168,68	105357.30	9.4980635	9.5207282
22	31509,69	33200,97	105367.47	9.4984442	9.5211508
23	31537,30	33233,27	105377.65	9.4988245	9.5215730
24	31564,90	33265,57	105387.85	9.4992045	9.5219950
25	31592,50	33297,88	105398.05	9.4995840	9.5224166
26	31620,10	33330,20	105408.26	9.4999633	9.5228379
27	31647,70	33362,52	105418.49	9.5003421	9.5232589
28	31675,29	33394,85	105428.73	9.5007206	9.5236795
29	31702,88	33427,19	105438.97	9.5010987	9.5240999
30	31730,47	33459,53	105449.23	9.5014764	9.5245199

71 Grad.

	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
0	95105,65	307768,35	323606,80	9.9782063	10,4882240
9	95096,66	307464,00	323317,36	9.9781653	10,4877943
8	95087,66	307160,20	323028,46	9.9781241	10,4873649
7	95078,65	306856,93	322740,11	9.9780830	10,4869359
6	95069,63	306554,21	322452,30	9.9780418	10,4865073
5	95060,60	306252,03	322165,03	9.9780006	10,4860790
4	95051.57	305950,38	321878,30	9.9779593	10,4856510
3	95042,53	305649,28	321592,10	9.9779180	10,4852234
2	95033,48	305348,70	321306,44	9.9778766	10,4847961
1	95024,42	305048,66	321021,32	9.9778353	10,4843691
0	95015,36	304749,15	320736,73	9.9777938	10,4839425
49	95006,29	304450,18	320452,66	9.9777523	10,4835162
48	94997,21	304151.73	320169,13	9.9777108	10,4830903
47	94988,12	303853,81	319886,13	9.9776693	10,4826647
46	94979,02	303556,41	319603,65	9.9776277	10,4822394
45	94969,91	303259,54	319321,70	9.9775860	10,4818145
44	94960,80	302963,20	319040,28	9.9775444	10,4813899
43	94951.68	302667,37	318759,37	9.9775026	10,4809656
42	94942,55	302372,07	318478,99	9.9774609	10,4805417
41	94933,41	302077,28	318199,13	9.9774191	10,4801181
40	94924,26	301783,01	317919,78	9.9773772	10,4796948
39	94915,11	301489,26	317640,95	9.9773354	10,4792718
38	94905,95	301196,02	317362,64	9.9772934	10,4788492
37	94896,78	300903,30	317084,84	9.9772515	10,4784270
36	94887,60	300611.09	316807,56	9.9772095	10,4780050
35	94878,41	300319,39	316530,78	9.9771674	10,4775834
34	94869,22	300028,20	316254,52	9.9771253	10,4771621
33	94860,02	299737,51	315978,76	9.9770832	10,4767411
32	94850,81	299447,34	315703,51	9.9770410	10,4763205
31	94841,59	299157,66	315428,77	9.9769988	10,4759001
30	94832,36	298868,50	315154,53	9.9769566	10,4754801

18 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Ta*
30	31730,47	33459,53	105449.23	9.5014764	9.524519
31	31758,05	33491,88	105459.50	9.5018538	9.524939
32	31785,63	33524,24	105469.78	9.5022308	9.525358
33	31813,21	33556,60	105480.07	9.5026075	9.525777
34	31840,79	33588,97	105490.37	9.5029838	9.526196
35	31868,36	33621,34	105500.68	9.5033597	9.526615
36	31895,93	33653,72	105511.01	9.5037353	9.527033
37	31923,50	33686,11	105521.34	9.5041105	9.527450
38	31951,06	33718,50	105531.69	9.5044853	9.527868
39	31978,63	33750,90	105542.04	9.5048598	9.528285
40	32006,19	33783,30	105552.41	9.5052339	9.528702
41	32033,74	33815,71	105562.79	9.5056077	9.529118
42	32061,30	33848,13	105573.18	9.5059811	9.529534
43	32088,85	33880,56	105583.58	9.5063542	9.529950
44	32116,40	33912,99	105593.99	9.5067268	9.530366
45	32143,95	33945,43	105604.41	9.5070992	9.530781
46	32171,49	33977,87	105614.85	9.5074712	9.531196
47	32199,03	34010,32	105625.29	9.5078428	9.531610
48	32226,57	34042,78	105635.75	9.5082141	9.532025
49	32254,10	34075,24	105646.21	9.5085850	9.532438
50	32281,64	34107,71	105656.69	9.5089556	9.532852
51	32309,17	34140,19	105667.18	9.5093258	9.533265
52	32336,70	34172,67	105677.68	9.5096956	9.533678
53	32364,22	34205,16	105688.19	9.5100651	9.534091
54	32391,74	34237,65	105698.71	9.5104343	9.534504
55	32419,26	34270,15	105709.24	9.5108031	9.5349161
56	32446,78	34302,66	105719.78	9.5111716	9.5353278
57	32474,29	34335,18	105730.34	9.5115397	9.5357393
58	32501,80	34367,70	105740.90	9.5119074	9.5361505
59	32529,31	34400,23	105751.48	9.5122749	9.5365613
60	32556,82	34432,76	105762.07	9.5126419	9.5369719

71 Grad.

	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
0	94832,36	298868,50	315154,53	9.9769566	10,4754801
9	94823,13	298579,83	314880,79	9.9769143	10,4750605
8	94813,89	298291,66	314607,56	9.9768720	10,4746411
7	94804,64	298004,00	314334,83	9.9768296	10,4742221
6	94795,38	297716,83	314062,59	9.9767872	10,4738034
5	94786,11	297430,16	313790,86	9.9767447	10,4733850
4	94776,84	297143,99	313519,62	9.9767022	10,4729669
3	94767,56	296858,31	313248,87	9.9766597	10,4725492
2	94758,27	296573,12	312978,62	9.9766171	10,4721318
1	94748,97	296288,42	312708,86	9.9765745	10,4717147
0	94739,66	296004,22	312439,59	9.9765318	10,4712979
9	94730,35	295720,50	312170,81	9.9764891	10,4708814
8	94721,03	295437,27	311902,52	9.9764464	10,4704653
7	94711,70	295154,53	311634,72	9.9764036	10,4700495
6	94702,36	294872,27	311367,40	9.9763608	10,4696339
5	94693,01	294590,50	311100,57	9.9763179	10,4692187
4	94683,66	294309,21	310834,22	9.9762750	10,4688039
3	94674,30	294028,40	310568,35	9.9762321	10,4683893
2	94664,93	293748,07	310302,96	9.9761891	10,4679750
1	94655,55	293468,22	310038,05	9.9761461	10,4675611
0	94646,16	293188,85	309773,63	9.9761030	10.4671474
9	94636,76	292909,95	309509,67	9.9760599	10,4667341
8	94627,36	292631,52	309246,20	9.9760167	10,4663211
7	94617,95	292353,58	308983,19	9.9759736	10,4659084
6	94608,53	292076,10	308720,66	9.9759303	10,4654960
5	94599,10	291799,09	308458,60	9.9758870	10,4650839
4	94589,67	291522,56	308197,02	9.9758437	10,4646722
3	94580,23	291246,49	307935,90	9.9758004	10.4642607
2	94570,78	290970,89	307675,25	9.9757570	10.4638495
1	94561,32	290695,76	307415,07	9.9757135	10,4634387
0	94551,85	290421,09	307155,35	9.9756701	10,4630281

19 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Ta
0	32556,82	34432,76	105762,07	9.5126419	9.53697
1	32584,32	34465,30	105772,67	9.5130086	9.53738
2	32611,82	34497,85	105783.28	9.5133750	9.53779
3	32639,31	34530,40	105793.90	9.5137410	9.538201
4	32666,81	34562,96	105804.53	9.5141067	9.538611
5	32694,30	34595,53	105815.17	9.5144721	9.539020
6	32721,79	34628,10	105825.83	9.5148371	9.539428
7	32749,28	34660,68	105836.49	9.5152017	9.539837
8	32776,76	34693,27	105847.17	9.5155660	9.540245
9	32804,24	34725,86	105857.86	9.5159300	9.540653
10	32831,72	34758,46	105868.55	9.5162936	9.541060
11	32859,19	34791,07	105879.26	9.5166569	9.541467
12	32886,66	34823,68	105889.99	9.5170198	9.541874
13	32914,13	34856,30	105900.72	9.5173824	9.542281
14	32941,60	34888,93	105911.46	9.5177447	9.542687
15	32969,06	34921,56	105922.21	9.5181066	9.543093
16	32996,52	34954,20	105932.98	9.5184682	9.543499
17	33023,98	34986,85	105943.76	9.5188295	9.543904
18	33051,44	35019,50	105954.54	9.5191904	9.544310
19	33078,89	35052,16	105965.34	9.5195510	9.544714
20	33106,34	35084,83	105976.15	9.5199112	9.545119
21	33133,79	35117,50	105986.97	9.5202711	9.545523
22	33161,23	35150,18	105997.81	9.5206307	9.545927
23	33188,67	35182,87	106008.65	9.5209899	9.546331
24	33216,11	35215,56	106019.51	9.5213488	9.546734
25	33243,55	35248,26	106030.37	9.5217074	9.547137
26	33270,98	35280,97	106041.25	9.5220656	9.547540
27	33298,41	35313,68	106052.14	9.5224235	9.547943
28	33325,84	35346,40	106063.04	9.5227811	9.548345
29	33353,27	35379,13	106073.95	9.5231383	9.548747
30	33380,69	35411,86	106084.87	9.5234953	9.549148

70 Grad.

	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tang*
0	94551,85	290421,09	307155,35	9.9756701	10,4630281
9	94542,38	290146,88	306896,10	9.9756265	10.4626179
8	94532,90	289873,14	306637,31	9.9755830	10.4622080
7	94523,41	289599,86	306378,98	9.9755394	10,4617983
6	94513,91	289327,04	306121,11	9.9754957	10,4613890
5	94504,40	289054,67	305863,70	9.9754521	10,4609800
4	94494,89	288782,77	305606,75	9.9754083	10,4605713
3	94485,37	288511,32	305350,26	9.9753646	10,4601629
2	94475,84	288240,33	305094,23	9.9753208	10,4597547
1	94466,30	287969,79	304838,64	9.9752769	10,4593469
0	94456,75	287699,70	304583,52	9.9752330	10,4589394
9	94447,20	287430,07	304328,84	9.9751891	10,4585322
8	94437,64	287160,88	304074,62	9.9751451	10,4581253
7	94428,07	286892,15	303820,84	9.9751011	10,4577187
6	94418,49	286623,86	303567,52	9.9750570	10,4573123
5	94408,90	286356,02	303314,64	9.9750129	10.4569063
4	94399,31	286088,63	303062,21	9.9749688	10,4565006
3	94389,71	285821,68	302810,23	9.9749246	10,4560952
2	94380,10	285555,17	302558,68	9.9748804	10,4556900
1	94370,48	285289,11	302307,59	9.9748361	10,4552852
0	94360,85	285023,49	302056,93	9.9747918	10,4548807
9	94351,21	284758,31	301806,72	9.9747475	10,4544764
8	94341,57	284493,56	301556,94	9.9747031	10,4540724
7	94331,92	284229,26	301307,60	9.9746587	10,4536688
6	94322,26	283965,39	301058,70	9.9746142	10,4532654
35	94312,60	283701,96	300810,24	9.9745697	10,4528623
34	94302,93	283438,96	300562,21	9.9745252	10,4524595
33	94293,25	283176,39	300314,62	9.9744806	10,4520570
32	94283,56	282914,26	300067,46	9.9744359	10,4516548
31	94273,86	282652,56	299820,73	9.9743913	10,4512529
30	94264,15	282391,29	299574,43	9.9743466	10,4508513

19 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Ta
30	33380,69	35411,86	106084.87	9.5234953	9.549148
31	33408,10	35444,60	106095.80	9.5238518	9.549550
32	33435,52	35477,35	106106.75	9.5242081	9.549951
33	33462,93	35510,10	106117.70	9.5245640	9.550351
34	33490,34	35542,86	106128.67	9.5249196	9.550752
35	33517,75	35575,63	106139.65	9.5252749	9.551152
36	33545,16	35608,40	106150.64	9.5256298	9.551552
37	33572,56	35641,18	106161.64	9.5259844	9.551952
38	33599,96	35673,97	106172.65	9.5263387	9.552351
39	33627,35	35706,76	106183.67	9.5266927	9.552750
40	33654,75	35739,56	106194.71	9.5270463	9.553149
41	33682,14	35772,37	106205.75	9.5273997	9.553547
42	33709,53	35805,18	106216.81	9.5277526	9.553945
43	33736,91	35838,00	106227.88	9.5281053	9.554343
44	33764,29	35870,83	106238.96	9.5284577	9.554741
45	33791,67	35903,67	106250.05	9.5288097	9.555138
46	33819,05	35936,51	106261.15	9.5291614	9.555535
47	33846,42	35969,36	106272.27	9.5295128	9.555932
48	33873,79	36002,22	106283.39	9.5298638	9.556329
49	33901,16	36035,08	106294.53	9.5302146	9.556725
50	33928,53	36067,95	106305.68	9.5305650	9.557121
51	33955,89	36100,83	106316.84	9.5309151	9.557517
52	33983,25	36133,71	106328.01	9.5312649	9.557912
53	34010,60	36166,60	106339.19	9.5316143	9.558307
54	34037,95	36199,50	106350.38	9.5319635	9.558702
55	34065,30	36232,40	106361.58	9.5323123	9.559097
56	34092,65	36265,31	106372.80	9.5326608	9.559491
57	34120,00	36298,23	106384.03	9.5330090	9.559885
58	34147,34	36331,15	106395.27	9.5333569	9.560279
59	34174,68	36364,08	106406.52	9.5337044	9.560672
60	34202,02	36397,02	106417.78	9.5340517	9.561065

70 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
30	94264,15	282391,29	299574,43	9.9743466	10,4508513
29	94254,43	282130,45	299328,56	9.9743018	10,4504500
28	94244,71	281870,03	299083,12	9.9742570	10,4500489
27	94234,98	281610,04	298838,11	9.9742122	10,4496481
26	94225,24	281350,48	298593,52	9.9741673	10,4492477
25	94215,50	281091,34	298349,36	9.9741224	10,4488475
24	94205,75	280832,63	298105,63	9.9740774	10,4484476
23	94195,99	280574,33	297862,31	9.9740324	10,4480479
22	94186,22	280316,46	297619,42	9.9739873	10,4476486
21	94176,44	280059,01	297376,95	9.9739422	10,4472496
20	94166,65	279801,98	297134,90	9.9738971	10,4468508
19	94156,85	279545,37	296893,27	9.9738519	10,4464523
18	94147,05	279289,17	296652,05	9.9738067	10,4460541
17	94137,24	279033,39	296411,25	9.9737615	10,4456562
16	94127,42	278778,02	296170,87	9.9737162	10,4452585
15	94117,60	278523,07	295930,90	9.9736709	10,4448612
14	94107,77	278268,53	295691,35	9.9736255	10,4444641
13	94097,93	278014,40	295452,21	9.9735801	10,4440673
12	94088,08	277760,69	295213,48	9.9735346	10,4436708
11	94078,22	277507,38	294975,16	9.9734891	10,4432745
10	94068,35	277254,48	294737,25	9.9734435	10.4428786
9	94058,48	277001,99	294499,75	9.9733980	10,4424829
8	94048,60	276749,90	294262,65	9.9733523	10,4420875
7	94038,71	276498,22	294025,97	9.9733067	10,4416923
6	94028,81	276246,95	293789,68	9.9732610	10,4412975
5	94018,90	275996,08	293553,80	9.9732152	10,4409029
4	94008,99	275745,61	293318,33	9.9731694	10,4405086
3	93999,07	275495,54	293083,26	9.9731236	10.4401146
2	93989,14	275245,88	292848,58	9.9730777	10.4397208
1	93979,20	274996,61	292614,31	9.9730318	10,4393273
0	93969,26	274747,74	292380,44	9.9729858	10,4389341

F

20 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tan
0	34202,02	36397,02	106417.78	9,5340517	9.5610658
1	34229,35	36429,97	106429.05	9,5343986	9.5614588
2	34256,68	36462,92	106440.33	9,5347452	9.5618515
3	34284,01	36495,88	106451.63	9,5350915	9.5622439
4	34311,33	36528,85	106462.94	9,5354375	9.5626360
5	34338,65	36561,82	106474.26	9,5357832	9.5630278
6	34365,97	36594,80	106485.59	9,5361286	9.5634194
7	34393,29	36627,79	106496.93	9,5364737	9.5638107
8	34420,60	36660,79	106508.28	9,5368184	9.5642018
9	34447,91	36693,79	106519.64	9,5371628	9,5645925
10	34475,22	36726,80	106531.01	9,5375069	9.5649831
11	34502,52	36759,82	106542.40	9,5378508	9.5653733
12	34529,82	36792,84	106553.80	9,5381943	9.5657633
13	34557,12	36825,87	106565.21	9,5385375	9.5661530
14	34584,42	36858,91	106576.63	9,5388804	9.5665424
15	34611,71	36891,95	106588.07	9,5392230	9.5669316
16	34639,00	36925,00	106599.51	9,5395653	9.5673205
17	34666,29	36958,06	106610.97	9,5399073	9.5677091
18	34693,57	36991,13	106622.43	9,5402489	9,5680975
19	34720,85	37024,20	106633.91	9,5405903	9.5684856
20	34748,13	37057,28	106645.40	9,5409314	9.5688735
21	34775,40	37090,37	106656.90	9,5412721	9.5692611
22	34802,67	37123,46	106668.42	9,5416126	9.5696484
23	34829,94	37156,56	106679.94	9,5419527	9.5700355
24	34857,21	37189,67	106691.48	9,5422926	9.5704223
25	34884,47	37222,78	106703.02	9,5426321	9.5708088
26	34911,73	37255,90	106714.58	9,5429713	9.5711951
27	34938,99	37289,03	106726.15	9.5433103	9.5715811
28	34966,24	37322,17	106737.74	9,5436489	9.5719669
29	34993,49	37355,32	106749.34	9.5439873	9.5723524
30	35020,74	37388,47	106760.94	9,5443253	9.5727377

69 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
60	93969,26	274747,74	292380,44	9.9729858	10,4389341
59	93959,31	274499,27	292146,97	9.9729398	10.4385412
58	93949,35	274251,20	291913,89	9.9728938	10,4381485
57	93939,38	274003,52	291681,21	9.9728477	10,4377561
56	93929,40	273756,23	291448,92	9.9728016	10,4373640
55	93919,42	273509,34	291217,03	9.9727554	10,4369722
54	93909,43	273262,84	290985,53	9.9727092	10,4365806
53	93899,43	273016,74	290754,43	9.9726629	10,4361893
52	93889,42	272771,02	290523,72	9.9726166	10,4357982
51	93879,40	272525,69	290293,39	9.9725703	10,4354075
50	93869,37	272280,75	290063,46	9.9725239	10,4350169
49	93859,34	272036,20	289833,91	9.9724775	10,4346267
48	93849,30	271792,04	289604,75	9.9724310	10,4342367
47	93839,25	271548,26	289375,98	9.9723845	10,4338470
46	93829,19	271304,87	289147,60	9.9723380	10,4334576
45	93819,13	271061,86	288919,59	9.9722914	10,4330684
44	93809,06	270819,23	288691,98	9.9722448	10,4326795
43	93798,98	270576,99	288464,74	9.9721981	10,4322909
42	93788,89	270335,13	288237,89	9.9721514	10,4319025
41	93778,79	270093,64	288011,42	9.9721047	10,4315144
40	93768,69	269852,54	287785,32	9.9720579	10,4311265
39	93758,58	269611,81	287559,61	9.9720110	10,4307389
38	93748,46	269371,47	287334,28	9.9719642	10.4303516
37	93738,33	269131,49	287109,32	9.9719172	10,4299645
36	93728,19	268891,90	286884,74	9.9718703	10,4295777
35	93718,05	268652,67	286660,53	9.9718233	10,4291912
34	93707,90	268413,83	286436,70	9.9717762	10,4288049
33	93697,74	268175,35	286213,24	9.9717291	10,4284189
32	93687,57	267937,25	285990,15	9.9716820	10,4280331
31	93677,40	257699,51	285767,44	9.9716348	10,4276476
30	93667,22	267462,15	285545,09	9.9715876	10.4272623

20 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tan*
30	35020,74	37388,47	106760.94	9.5443253	9.5727377
31	35047.99	37421,63	106772.55	9.5446630	9.5731227
32	35075,23	37454.79	106784.18	9.5450005	9.5735074
33	35102.47	37487.97	106795.82	9.5453376	9.5738919
34	35129,70	37521,15	106807.47	9.5456745	9.5742761
35	35156,93	37554.34	106819.14	9.5460110	9.5746601
36	35184.16	37587.53	106830.81	9.5463472	9.5750438
37	35211,39	37620.73	106842.50	9.5466832	9.5754272
38	35238,62	37653.94	106854.20	9.5470189	9.5758104
39	35265,84	37687,16	106865.91	9.5473542	9.5761934
40	35293,06	37720,38	106877.63	9.5476893	9.5765761
41	35320,27	37753,61	106889.36	9.5480240	9.5769585
42	35347.48	37786,85	106901.10	9.5483585	9.5773407
43	35374,69	37820,10	106912.86	9.5486927	9.5777226
44	35401,90	37853.35	106924,63	9.5490266	9.5781043
45	35429,10	37886,61	106936,41	9.5493602	9.5784858
46	35456,30	37919,88	106948.20	9.5496935	9.5788669
47	35483,50	37953,16	106960.00	9.5500265	9.5792479
48	35510,70	37986,44	106971.82	9.5503592	9.5796286
49	35537,89	38019,73	106983.64	9.5506916	9.5800090
50	35565,08	38053,03	106995.48	9.5510237	9.5803892
51	35592,26	38086,33	107007.33	9.5513556	9.5807691
52	35619,44	38119,64	107019.19	9.5516871	9.5811488
53	35646,62	38152,96	107031,06	9.5520184	9.5815282
54	35673.80	38186.29	107042,95	9.5523494	9.5819074
55	35700,97	38219,62	107054.84	9.5526801	9.5822864
56	35728,14	38252,96	107066.75	9.5530105	9.5826651
57	35755,31	38286,31	107078.67	9.5533406	9.5830435
58	35782,48	38319,67	107090.60	9.5536704	9.5834217
59	35809,64	38353.03	107102,54	9.5539999	9.5837997
60	35836.79	38386,40	107114.50	9.5543292	9.5841774

69 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tang*
30	93667,22	267462,15	285545,09	9,9715876	10,4272623
29	93657,03	267225,16	285323,12	9,9715404	10,4268773
28	93646,83	266988,53	285101,52	9,9714931	10,4264926
27	93636.62	266752.27	284880,28	9,9714457	10,4261081
26	93626,40	266516,38	284659,41	9,9713984	10,4257239
25	93616,18	266280,85	284438,91	9,9713509	10,4253399
24	93605,95	266045,69	284218,77	9,9713035	10,4249562
23	93595,71	265810.89	283998.99	9,9712560	10,4245728
22	93585,46	265576,45	283779,58	9,9712084	10,4241896
21	93575,21	265342,38	283560,54	9,9711608	10,4238066
20	93564,95	265108,67	283341,85	9,9711132	10,4234239
19	93554,68	264875,31	283123,53	9,9710655	10,4230415
18	93544,40	264642,32	282905,56	9,9710178	10,4226593
17	93534,11	264409,69	282687,96	9,9709701	10,4222774
16	93523,82	264177,41	282470,71	9,9709223	10,4218957
15	93513,52	263945,49	282253,82	9,9708744	10,4215142
14	93503,21	263713,92	282037,29	9,9708265	10,4211331
13	93492,89	263482,71	281821,11	9,9707786	10,4207521
12	93482,56	263251,86	281605,29	9,9707306	10,4203714
11	93472,23	263021,36	281389,82	9,9706826	10,4199910
10	93461,89	262791,21	281174,71	9,9706346	10,4196108
9	93451,54	262561,41	280959,95	9,9705865	10,4192309
8	93441,18	262331,96	280745,54	9,9705383	10,4188512
7	93430,82	262102,86	280531,48	9,9704902	10,4184718
6	93420,45	261874,11	280317,77	9,9704419	10,4180926
5	93410,07	261645,71	280104,41	9,9703937	10,4177136
4	93399,68	261417,66	279891,40	9,9703454	10,4173349
3	93389,28	261189,95	279678,73	9,9702970	10,4169565
2	93378,87	260962,59	279466,41	9,9702486	10,4165783
1	93368,46	260735,58	279251,44	9,9702002	10,4162003
0	93358,04	260508,91	279042,81	9,9701517	10,4158226

21 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tan
0	35836,79	38386,40	107114.50	9.5543292	9.5841774
1	35863,95	38419,78	107126.47	9.5546581	9.5845549
2	35891,10	38453,17	107138.44	9.5549868	9.5849321
3	35918,25	38486,56	107150.43	9.5553152	9.5853091
4	35945,40	38519,96	107162,44	9.5556433	9.5856859
5	35972,54	38553,37	107174.45	9.5559711	9.5860624
6	35999.68	38586,79	107186.47	9.5562987	9.5864386
7	36026,82	38620,21	107198,51	9.5566259	9.5868147
8	36053,95	38653,64	107210.56	9.5569529	9.5871904
9	36081,08	38687,08	107222.62	9.5572796	9.5875660
10	36108,21	38720,53	107234.69	9.5576060	9.5879413
11	36135,33	38753,98	107246.78	9.5579321	9.5883163
12	36162,46	38787,44	107258.87	9.5582579	9.5886912
13	36189,58	38820,91	107270.98	9.5585835	9.5890657
14	36216,69	38854,39	107283.10	9.5589088	9.5894401
15	36243.80	38887,87	107295.23	9.5592338	9.5898142
16	36270,91	38921,36	107307.37	9.5595585	9.5901881
17	36298,02	38954,86	107319.53	9.5598829	9.5905617
18	36325,12	38988,37	107331.70	9.5602071	9.5909351
19	36352,22	39021,89	107343.88	9.5605310	9.5913082
20	36379,32	39055,41	107356,07	9.5608546	9.5916812
21	36406,41	39088,94	107368.27	9.5611779	9.5920539
22	36433,50	39122,48	107380.48	9.5615010	9.5924263
23	36460,59	39156,02	107392.71	9.5618237	9.5927985
24	36487,68	39189,57	107404.95	9.5621462	9.5931705
25	36514,76	39223,13	107417.20	9.5624685	9.5935422
26	36541,84	39256,70	107429.46	9.5627904	9.5939138
27	36568,92	39290,28	107441.73	9.5631121	9.5942851
28	36595,99	39323,86	107454,02	9.5634335	9.5946561
29	36623,06	39357,45	107466.31	9.5637546	9.5950269
30	36650,13	39391,05	107478.62	9.5640754	9.5953975

68 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
60	93358,04	260508,91	279042,81	9,9701517	10,4158226
59	93347,61	260282,58	278831,53	9,9701032	10,4154451
58	93337,17	260056,59	278620,59	9,9700547	10,4150679
57	93326,73	259830,95	278409,99	9,9700061	10,4146909
56	93316,28	259605,64	278199,73	9,9699574	10,4143141
55	93305,82	259380,68	277989,82	9,9699087	10,4139376
54	93295,35	259156,06	277780,24	9,9698600	10,4135614
53	93284,87	258931,77	277571,00	9,9698112	10,4131853
52	93274,39	258707,82	277362,11	9,9697624	10,4128096
51	93263,90	258484,21	277153,55	9,9697136	10,4124340
50	93253,40	258260,94	276945,32	9,9696647	10,4120587
49	93242.89	258038,70	276737,43	9,9696158	10,4116837
48	93232,38	257815,39	276529,88	9,9695668	10,4113088
47	93221,86	257593,12	276322,66	9,9695177	10,4109343
46	93211,33	257371,18	276115.78	9,9694687	10,4105599
45	93200,79	257149.57	275909,23	9,9694196	10,4101858
44	93190,24	256928,30	275703,01	9,9693704	10,4098119
43	93179.68	256707,35	275497,12	9,9693212	10,4094383
42	93169,12	256486,74	275291,57	9,9692720	10,4090649
41	93158,55	256266,45	275086,34	9.9692227	10,4086918
40	93147,97	256046,49	274881,44	9,9691734	10,4083188
39	93137,38	255826.86	274676.87	9,9691240	10,4079461
38	93126,79	255607,56	274472,63	9,9690746	10,4075737
37	93116,19	255388,58	274268,71	9,9690252	10,4072015
36	93105,58	255169,92	274065,12	9,9689757	10,4068295
35	93094,96	254951,60	273861,86	9,9689262	10,4064577
34	93084,33	254733,59	273658,92	9,9688766	10,4060862
33	93073,70	254515,91	273456,30	9,9688270	10,4057149
32	93063,06	254298,55	273254,00	9,9687773	10,4053439
31	93052,41	254081,51	273052,03	9,9687276	10,4049731
30	93041,75	253864,79	272850,38	9,9686779	10,4046025

21 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
30	36650,13	39391,05	107478.62	9.5640754	9.5953975
31	36677.19	39424,66	107490.95	9.5643960	9.5957679
32	36704,25	39458,27	107503.28	9.5647163	9.5961380
33	36731.31	39491.89	107515.62	9.5650363	9.5965079
34	36758,36	39525.52	107527.98	9.5653561	9.5968776
35	36785.41	39559.16	107540.35	9.5656756	9.5972470
36	36812,46	39592,80	107552.73	9.5659948	9.5976162
37	36839.50	39626,45	107565.12	9.5663137	9.5979852
38	36866,54	39660,11	107577.53	9.5666324	9.5983540
39	36893.58	39693.78	107589.95	9.5669508	9.5987225
40	36920,62	39727,46	107602.37	9.5672689	9.5990908
41	36947.65	39761,14	107614.81	9.5675868	9.5994588
42	36974,68	39794.83	107627.27	9.5679044	9.5998267
43	37001.70	39828,53	107639.73	9.5682217	9.6001943
44	37028.72	39862,24	107652,21	9.5685387	9.6005617
45	37055.74	39895.96	107664.70	9.5688555	9.6009289
46	37082,76	39929,68	107677,20	9.5691721	9.6012958
47	37109.77	39963,41	107689.71	9.5694883	9.6016625
48	37136.78	39997.15	107702.24	9.5698043	9.6020290
49	37163.79	40030,89	107714.77	9.5701200	9.6023953
50	37190,80	40064.65	107727.32	9.5704355	9.6027613
51	37217.80	40098,41	107739.88	9.5707506	9.6031271
52	37244.80	40132,18	107752.46	9.5710656	9.6034927
53	37271.79	40165,96	107765,04	9.5713802	9.6038581
54	37298.78	40199.75	107777.64	9.5716946	9.6042233
55	37325.77	40233.54	107790,25	9.5720087	9.6045882
56	37352.75	40267.34	107802.87	9.5723226	9.6049529
57	37379.73	40301.15	107815.50	9.5726362	9.6053174
58	37406,71	40334.97	107828.15	9.5729495	9.6056817
59	37433,69	40368.79	107840.80	9.5732626	9.6060457
60	37460,66	40402,62	107853.47	9.5735754	9.6064096

68 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
30	93041,75	253864,79	272850,38	9.9086779	10,4046025
29	93031,09	253648,39	272649,05	9.9686281	10,4042321
28	93020,42	253432,31	272448,04	9.9685783	10,4038620
27	93009,74	253216,55	272247,35	9.9685284	10.4034921
26	92999,05	253001,11	272046,98	9.9684785	10,4031224
25	92988,35	252785,98	271846,93	9.9684286	10,4027530
24	92977,65	252571,17	271647,19	9.9683786	10,4023838
23	92966,94	252356,67	271447,77	9.9683285	10,4020148
22	92956,22	252142,49	271248,66	9.9682784	10,4016460
21	92945,49	251928,63	271049,87	9.9682283	10.4012775
20	92934,75	251715,07	270851,39	9.9681781	10,4009092
19	92924,01	251501,83	270653,23	9.9681279	10,4005411
18	92913.26	251288,90	270455,38	9.9680777	10,4001733
17	92902.50	251076,29	270257,84	9.9680274	10,3998057
16	92891,73	250863,98	270060,61	9.9679771	10,3994383
15	92880,95	250651,98	269863,70	9.9679267	10.3990711
14	92870,17	250440,29	269667,09	9.9678763	10,3987042
13	92859,38	250228,91	269470,79	9.9678258	10,3983375
12	92848,58	250017,84	269274,80	9.9677753	10,3979710
11	92837,77	249807,07	269079,12	9.9677247	10,3976047
10	92826,96	249596,61	268883,74	9.9676741	10,3972387
9	92816,14	249386,45	268688,67	9.9676235	10,3968729
8	92805,31	249176,60	268493,91	9.9675728	10,3965073
7	92794,47	248967,06	268299,45	9.9675221	10,3961419
6	92783,62	248757,81	268105,30	9.9674713	10,3957767
5	92772,77	248548,87	267911,45	9.9674205	10,3954118
4	92761,91	248340,23	267717,90	9.9673697	10,3950471
3	92751,04	248131,90	267524.65	9 9673188	10,3946826
2	92740,16	247923,86	267331,70	9.9672679	10,3943183
1	92729,28	247716,12	267139,06	9.9672169	10,3939543
0	92718,39	247508,69	266946,72	9.9671659	10,3935904

22 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Ta*
0	37460,66	40402,62	107853,47	9.5735754	9,6064066
1	37487,63	40436,46	107866,16	9.5738880	9,6067732
2	37514,59	40470,31	107878,85	9.5742003	9,6071366
3	37541,56	40504,17	107891,56	9.5745123	9,6074997
4	37568,52	40538,04	107904,27	9.5748240	9,6078627
5	37595,47	40571,91	107917,00	9.5751356	9,6082254
6	37622,43	40605,79	107929,75	9.5754468	9,6085880
7	37649,38	40639,68	107942,50	9.5757578	9,6089507
8	37676,32	40673,58	107955,27	9.5760685	9,6093124
9	37703,27	40707,48	107968,05	9.5763790	9,6096742
10	37730,21	40741,39	107980,84	9.5766892	9,6100359
11	37757,14	40775,31	107993,64	9.5769991	9,6103973
12	37784,08	40809,24	108006,46	9.5773088	9,6107586
13	37811,01	40843,18	108019,28	9.5776183	9,6111196
14	37837,94	40877,13	108032,12	9.5779275	9,6114804
15	37864,86	40911,08	108044,97	9.5782364	9,6118409
16	37891,78	40945,04	108057,84	9.5785450	9,6122013
17	37918,70	40979,01	108070,71	9.5788535	9,6125615
18	37945,62	41012,99	108083,60	9.5791616	9,6129214
19	37972,53	41046,97	108096,50	9.5794695	9,6132812
20	37999,44	41080,97	108109,42	9.5797772	9,6136407
21	38026,34	41114,97	108122,34	9.5800845	9,6140000
22	38053,24	41148,98	108135,28	9.5803917	9,6143591
23	38080,14	41183,00	108148,23	9.5806986	9,6147180
24	38107,04	41217,03	108161,19	9.5810052	9,6150766
25	38133,93	41251,06	108174,17	9.5813116	9,6154351
26	38160,82	41285,10	108187.15	9.5816177	9,6157934
27	38187.70	41319,15	108200,15	9.5819236	9,6161514
28	38214,59	41353,21	108213,16	9.5822292	9.6165093
29	38241,47	41387,28	108226.18	9.5825345	9,6168669
30	38268,34	41321,36	108239,22	9.5828397	9,6172243

67 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
60	92718,39	247508,69	266946,72	9.9671659	10,3935904
59	92707,49	247301,55	266754,67	9.9671148	10,3932268
58	92696,58	247094.70	266562,92	9.9670637	10,3928634
57	92685,66	246888,16	266371,48	9.9670125	10,3925003
56	92674,73	246681,91	266180,33	9.9669614	10,3921373
55	92663,80	246475,96	265989,47	9.9669101	10,3917746
54	92652,86	246270,30	265798,91	9.9668588	10,3914120
53	92641,91	246064,94	265608,65	9.9668075	10,3910497
52	92630,96	245859,87	265418,68	9.9667562	10,3906876
51	92620,00	245655,09	265229,01	9.9667048	10,3903258
50	92609,03	245450,61	265039,62	9.9666533	10,3899641
49	92598.05	245246,42	264850,54	9.9666018	10,3896027
48	92587,06	245042,52	264661,74	9.9665503	10,3892414
47	92576,06	244838,91	264473,23	9.9664987	10,3888804
46	92565,06	244635,59	264285,02	9.9664471	10,3885196
45	92554,05	244432,56	264097,09	9.9663954	10,3881591
44	92543,03	244229,82	263909,46	9.9663437	10,3877987
43	92532,00	244027,36	263722,11	9.9662920	10,3874385
42	92520,97	243825,19	263535,05	9.9662402	10,3870786
41	92509.93	243623,31	263348,28	9.9661884	10,3867188
40	92498.88	243421,72	263161,80	9.9661365	10,3863593
39	92487,82	243220,41	262975,60	9.9660846	10,3860000
38	92476,75	243019,38	262789,69	9.9660326	10,3856409
37	92465,68	242818,64	262604,06	9.9659806	10,3852820
36	92454,60	242618,19	262418,72	9.9659285	10,3849234
35	92443,51	242418,01	262233,66	9.9658764	10,3845649
34	92432,41	242218,12	262048,88	9.9658243	10,3842066
33	92421,31	242018,51	261864,39	9.9657721	10,3838486
32	92410,20	241819,18	261680,18	9.9657199	10,3834907
31	92399,08	241620,13	261496,24	9.9656677	10,3831331
30	92387,95	241421,36	261312,59	9.9656153	10,3827757

22 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
30	38268,34	41421,36	108239,22	9.5828397	9,6172243
31	38295,22	41455,44	108252,27	9.5831445	9,6175815
32	38322,09	41489,53	108265,33	9.5834491	9,6179385
33	38348,95	41523,63	108278,40	9.5837535	9,6182953
34	38375,82	41557,74	108291,49	9.5840576	9,6186519
35	38402,68	41591,86	108304,58	9.5843615	9,6190083
36	38429,53	41625,99	108317,69	9.5846651	9,6193645
37	38456,39	41660,12	108330,81	9.5849685	9,6197205
38	38483,24	41694,26	108343,95	9.5852716	9,6200762
39	38510,08	41728,41	108357,09	9.5855745	9,6204318
40	38536,93	41762,57	108370,25	9.5858771	9,6207872
41	38563,77	41796,74	108383,42	9.5861795	9,6211423
42	38590,60	41830,91	108396.61	9.5864816	9,6214973
43	38617,44	41865,09	108409,80	9.5867835	9,6218520
44	38644,27	41899,28	108423.01	9.5870851	9,6222066
45	38671,10	41933,48	108436,23	9.5873865	9,6225609
46	38697,92	41967,69	108449,47	9.5876876	9,6229150
47	38724,74	42001,91	108462,71	9.5879885	9,6232690
48	38751.56	42036,13	108475,97	9.5882892	9,6236227
49	38778,37	42070,36	108489,24	9.5885896	9,6239763
50	38805,18	42104,60	108502,52	9.5888897	9,6243296
51	38831,99	42138,85	108515,82	9.5891897	9,6246827
52	38858,80	42173,11	108529,13	9.5894893	9,6250356
53	38885,60	42207,38	108542,45	9.5897888	9,6253884
54	38912,39	42241,66	108555,78	9.5900880	9,6257409
55	38939,19	42275,94	108569,12	9.5903869	9,6260932
56	38965,98	42310,23	108582,48	9.5906856	9,6264454
57	38992,77	42344,53	108595,85	9.5909841	9,6267973
58	39019,55	42378,84	108609,24	9.5912823	9,6271491
59	39046,33	42413,16	108622.63	9.5915803	9.6275006
60	39073,11	42447,49	108636,04	9.5918780	9,6278519

67 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
30	92387,95	241421,36	261312,59	9.9656153	10,3827757
29	92376,81	241222,86	261129,22	9.9655630	10,3824185
28	92365,67	241024,65	260946,13	9.9655106	10,3820615
27	92354,52	240826,72	260763,32	9.9654582	10,3817047
26	92343,36	240629,06	260580,78	9.9654057	10,3813481
25	92332,19	240431,68	260398,52	9.9653532	10,3809917
24	92321,02	240234,57	260216,54	9.9653006	10,3806355
23	92309,84	240037,74	260034,84	9.9652480	10,3802795
22	92298,65	239841,18	259853,41	9.9651953	10,3799238
21	92287,45	239644,90	259672,25	9.9651426	10,3795682
20	92276,24	239448,89	259491,37	9.9650899	10,3792128
19	92265,03	239253,16	259310,77	9.9650371	10,3788577
18	92253,81	239057,69	259130,43	9.9649843	10,3785027
17	92242,58	238862,50	258950,37	9.9649314	10,3781480
16	92231,34	238667,58	258770,58	9.9648785	10,3777934
15	92220,09	238472,93	258591,07	9.9648256	10,3774391
14	92208,84	238278,55	258411,82	9.9647726	10,3770850
13	92197,58	238084,44	258232,84	9.9647195	10,3767310
12	92186,31	237890,60	258054,14	9.9646665	10,3763773
11	92175,03	237697,03	257875,70	9.9646133	10,3760237
10	92163,75	237503,72	257697,53	9.9645602	10,3756704
9	92152,46	237310,68	257519,63	9.9645069	10,3753173
8	92141,16	237117,91	257341,99	9.9644537	10,3749644
7	92129,85	236925,40	257164,62	9.9644004	10,3746116
6	92118,54	236733,16	256987,52	9.9643470	10,3742591
5	92107,22	236541,18	256810,69	9.9642937	10,3739068
4	92095,89	236349,46	256634,12	9.9642402	10,3735546
3	92084,55	236158,01	256457,81	9.9641868	10,3732027
2	92073,20	235966,83	256281,76	9.9641332	10,3728509
1	92061,85	235775,90	256105,99	9.9640797	10,3724994
0	92050,49	235585,24	255930,47	9.9640261	10,3721481

23 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*LogTang*
0	39073.11	42447,49	108636.04	9.5918780	9,6278519
1	39099,89	42481,82	108649.46	9.5921755	9,6282031
2	39126,66	42516,16	108662,89	9.5924728	9,6285540
3	39153.43	42550,51	108676.34	9.5927698	9,6289048
4	39180,19	42584,87	108689.79	9.5930666	9,6292553
5	39206,95	42619,24	108703.26	9.5933631	9,6296057
6	39233,71	42653,62	108716.75	9.5936594	9,6299558
7	39260,47	42688,00	108730.24	9.5939555	9,6303058
8	39287,22	42722,39	108743.75	9.5942513	9,6306556
9	39313.97	42756,79	108757.27	9.5945469	9,6310052
10	39340,71	42791,20	108770.80	9.5948422	9,6313545
11	39367,45	42825,62	108784.35	9.5951373	9,6317037
12	39394.19	42860,05	108797.91	9.5954322	9,6320527
13	39420,93	42894,49	108811.48	9.5957268	9,6324015
14	39447,66	42928,94	108825,06	9.5960212	9,6327501
15	39474,39	42963,39	108838.66	9.5963154	9,6330985
16	39501,11	42997,85	108852.27	9.5966093	9,6334468
17	39527,83	43032,32	108865.89	9.5969030	9,6337948
18	39554,55	43066,80	108879.52	9.5971965	9,6341426
19	39581,27	43101,29	108893.17	9.5974897	9,6344903
20	39607,98	43135,79	108906.83	9.5977827	9,6348378
21	39634,69	43170,30	108920.50	9.5980754	9,6351850
22	39661,39	43204,81	108934.18	9.5983679	9,6355321
23	39688,09	43239,33	108947.88	9.5986602	9,6358790
24	39714.79	43273,86	108961.59	9.5989523	9,6362257
25	39741,48	43308,40	108975.31	9.5992441	9,6365722
26	39768,17	43342,95	108989.04	9.5995357	9,6369185
27	39794,86	43377,51	109002.79	9.5998271	9,6372646
28	39821,55	43412,08	109016,55	9.6001181	9,6376106
29	39848.23	43446,66	109030,32	9.6004090	9,6379563
30	39874,91	43481,24	109044,11	9.6006997	9,6383019

66 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
60	92050,49	235585,24	255930,47	9.9640261	10,3721481
59	92039.12	235394.83	255755,21	9.9639724	10,3717969
58	92027,74	235204,69	255580,22	9.9639187	10,3714460
57	92016,35	235014,81	255405,48	9.9638650	10,3710952
56	92004,96	234825,19	255231,01	9.9638112	10,3707447
55	91993,56	234635,82	255056,80	9.9637574	10,3703943
54	91982,15	234446,72	254882,84	9.9637036	10,3700442
53	91970,73	234257,87	254709,15	9.9636496	10,3696942
52	91959,31	234069,28	254535,71	9.9635957	10,3693444
51	91947.88	233880,95	254362,53	9.9635417	10,3689948
50	91936,44	233692,87	254189,61	9.9634877	10,3686455
49	91924,99	233505,05	254016,94	9.9634336	10,3682963
48	91913,53	233317,48	253844,53	9.9633795	10,3679473
47	91902,07	233130,17	253672,38	9.9633253	10,3675985
46	91890,60	232943,11	253500,48	9.9632711	10,3672499
45	91879,12	232756,30	253328,83	9.9632168	10,3669015
44	91867,63	232569,75	253157,44	9.9631625	10,3665532
43	91856,14	232383,45	252986,30	9.9631082	10,3662052
42	91844,64	232197,40	252815,41	9.9630538	10,3658574
41	91833,13	232011,60	252644,78	9.9629994	10,3655097
40	91821,61	231826,06	252474.40	9.9629449	10,3651622
39	91810,08	231640,76	252304,26	9.9628904	10,3648150
38	91798,55	231455,71	252134,38	9.9628358	10,3644679
37	91787,01	231270,91	251964,75	9.9627812	10,3641210
36	91775,46	231086,36	251795,37	9.9627266	10,3637743
35	91763,90	230902,06	251626,24	9.9626719	10,3634278
34	91752,34	230718,01	251457,35	9.9626172	10,3630815
33	91740,77	230534,20	251288,71	9.9625624	10,3627354
32	91729,19	230350,64	251120,32	9.9625076	10,3623894
31	91717,60	230167,32	250952,18	9.9624527	10,3620437
30	91706,01	229984,25	250784,28	9.9623978	10,3616981

23 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*LogTang*
30	39874,91	43481,24	109044,11	9.6006997	9,6383019
31	39901,58	43515,83	109057.91	9.6009901	9,6386473
32	39928,25	43550,43	109071.72	9.6012803	9,6389925
33	39954.92	43585,04	109085.54	9.6015703	9,6393375
34	39981,58	43619,66	109099.38	9.6018600	9,6396823
35	40008,24	43654,29	109113.23	9.6021495	9,6400269
36	40034.90	43688,93	109127.09	9.6024388	9,6403714
37	40061,56	43723,58	109140.97	9.6027278	9,6407156
38	40088,21	43758,23	109154.86	9.6030166	9,6410597
39	40114.86	43792,89	109168.76	9.6033052	9,6414036
40	40141,50	43827,56	109182.67	9.6035936	9,6417473
41	40168,14	43862,24	109196.59	9.6038817	9,6420908
42	40194,73	43896,93	109210.53	9.6041696	9,6424342
43	40221,41	43931,63	109224.48	9.6044573	9,6427773
44	40248,04	43966,34	109238.45	9.6047448	9,6431203
45	40274.67	44001,06	109252.43	9.6050320	9,6434631
46	40301,29	44035,78	109266,42	9.6053190	9,6438057
47	40327,91	44070,51	109280,42	9.6056057	9,6441481
48	40354.53	44105,25	109294.44	9.6058923	9,6444903
49	40381,14	44140,00	109308.47	9.6061786	9,6448324
50	40407,75	44174,76	109322.51	9.6064647	9,6451743
51	40434,36	44209.53	109336.56	9.6067506	9,6455160
52	40460,96	44244,31	109350,63	9.6070362	9,6458575
53	40487,56	44279,10	109364.71	9.6073216	9,6461988
54	40514,16	44313,90	109378.80	9.6076068	9,6465400
55	40540,75	44348,71	109392.91	9.6078918	9,6468810
56	40567,34	44383,53	109407.03	9.6081765	9,6472217
57	40593.93	44418,35	109421.16	9.6084611	9,6475624
58	40620,51	44453,18	109435.30	9.6087454	9,6479028
59	40647,09	44488,02	109449.46	9.6090294	9,6482431
60	40673.66	44522,87	109463 63	9.6093133	9,6485831

66 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
30	91706,01	229984,25	250784,28	9.9623978	10,3616981
29	91694.41	229801,43	250616,63	9.9623428	10,3613527
28	91682,80	229618,85	250449,23	9.9622878	10,3610075
27	91671.18	229436,51	250282,07	9.9622328	10,3606625
26	91659,55	229254,42	250115,15	9.9621777	10,3603177
25	91647,91	229072,57	249948,47	9.9621226	10,3599731
24	91636,27	228890,96	249782,04	9.9620674	10,3596286
23	91624,62	228709,59	249615,86	9.9620122	10,3592844
22	91612,96	228528,46	249449,91	9.9619569	10,3589403
21	91601,30	228347,58	249284,21	9.9619016	10,3585964
20	91589,63	228166,93	249118,74	9.9618463	10,3582527
19	91577,95	227986,53	248953,52	9.9617909	10,3579092
18	91566,26	227806,36	248788,54	9.9617355	10,3575658
17	91554,56	227626,43	248623,80	9.9616800	10,3572227
16	91542,86	227446,74	248459,29	9.9616245	10,3568797
15	91531,15	227267,29	248295,03	9.9615689	10,3565369
14	91519,43	227088,07	248131,00	9.9615133	10,3561943
13	91507,70	226909,09	247967,21	9.9614576	10,3558519
12	91495,96	226730,35	247803,66	9.9614020	10,3555097
11	91484,22	226551.84	247640,34	9.9613463	10,3551676
10	91472,47	226373,57	247477,26	9.9612904	10,3548257
9	91460,71	226195,53	247314,42	9.9612346	10,3544840
8	91448,95	226017,73	247151,81	9.9611787	10,3541425
7	91437,18	225840,16	246989,43	9.9611228	10,3538012
6	91425,40	225662,83	246827,29	9.9610668	10,3534600
5	91413,61	225485,72	246665,38	9.9610108	10,3531190
4	91401,81	225308,85	246503,71	9.9609548	10,3527783
3	91390,00	225132,21	246342,27	9.9608987	10,3524376
2	91378,19	224955,80	246181,06	9.9608426	10,3520972
1	91366,37	224779,62	246020,08	9.9607864	10,3517569
0	91354,54	224603,68	245859,33	9.9607302	10,3514169

24 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	LogTang
0	40673.66	44522,87	109463.63	9.6093133	9,6485831
1	40700,23	44557,73	109477.81	9.6095969	9,6489230
2	40726,80	44592,60	109492.01	9.6098803	9,6492628
3	40753.37	44627,48	109506,22	9.6101635	9,6496023
4	40779.93	44662,37	109520.44	9.6104465	9,6499417
5	40806,49	44697,27	109534.67	9.6107293	9,6502809
6	40833,05	44732,17	109548.92	9.6110118	9,6506199
7	40859,60	44767,08	109563.18	9.6112941	9,6509587
8	40886,15	44802,00	109577.46	9.6115762	9,6512974
9	40912,69	44836,93	109591.74	9.6118580	9,6516359
10	40939,23	44871,87	109606.04	9.6121397	9,6519742
11	40965.77	44906,82	109620,36	9.6124211	9,6523123
12	40992.30	44941,78	109634.68	9.6127023	9,6526503
13	41018,83	44976,75	109649.02	9.6129833	9,6529881
14	41045,36	45011,73	109663.37	9.6132641	9,6533257
15	41071.89	45046,72	109677.74	9.6135446	9,6536631
16	41098,41	45081,72	109692.12	9.6138250	9,6540004
17	41124,93	45116,73	109706.51	9.6141051	9,6543375
18	41151.44	45151,74	109720.91	9.6143850	9,6546744
19	41177,95	45186,76	109735.33	9.6146647	9,6550112
20	41204.46	45221,79	109749.76	9.6149441	9,6553477
21	41230,96	45256,83	109764,20	9.6152234	9,6556841
22	41257.46	45291,88	109778,66	9.6155024	9,6560204
23	41283.95	45326,94	109793.13	9.6157812	9,6563564
24	41310.44	45362,01	109807.61	9.6160598	9,6566923
25	41336,93	45397,09	109822,11	9.6163382	9,6570280
26	41363,42	45432,18	109836.62	9.6166164	9,6573636
27	41389.90	45467,28	109851.14	9.6168944	9,6576989
28	41416,38	45502,39	109865.68	9.6171721	9,6580341
29	41442.85	45537,51	109880.23	9.6174496	9,6583692
30	41469.32	45572,64	109894.79	9.6177270	9,6587041

65 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
60	91354.54	224603,68	245859.33	9.9607302	10,3514169
59	91342,71	224427,96	245698,82	9.9606739	10,3510770
58	91330,87	224252,47	245538,53	9.9606176	10,3507372
57	91319,02	224077.21	245378.48	9.9605612	10,3503977
56	91307.16	223902,18	245218,65	9.9605048	10,3500583
55	91295,29	223727.38	245059,05	9.9604484	10,3497191
54	91283.42	223552.80	244899.68	9.9603919	10,3493801
53	91271.54	223378,45	244740.54	9.9603354	10,3490413
52	91259,65	223204,33	244581,63	9.9602788	10,3487026
51	91247.75	223030,43	244422,94	9.9602222	10,3483641
50	91235.84	222856,76	244264,48	9.9601655	10,3480258
49	91223,93	222683,31	244106,24	9.9601088	10,3476877
48	91212,01	222510,09	243948,23	9.9600520	10,3473497
47	91200,08	222337,09	243790,45	9.9599952	10,3470119
46	91188.14	222164,32	243632,89	9.9599384	10,3466743
45	91176,20	221991.77	243475.55	9.9598815	10,3463369
44	91164,25	221819,44	243318,44	9.9598246	10,3459996
43	91152,29	221647,33	243161,55	9.9597676	10,3456625
42	91140,32	221475,45	243004.89	9.9597106	10,3453256
41	91128,35	221303,79	242848,44	9.9596535	10,3449888
40	91116,37	221132,34	242692,22	9.9595964	10,3446523
39	91104,38	220961,12	242536,22	9.9595393	10,3443159
38	91092,38	220790,12	242380,44	9.9594821	10,3439796
37	91080,38	220619,34	242224,88	9.9594248	10,3436436
36	91068,37	220448'78	242069,54	9.9593675	10,3433077
35	91056,35	220278,43	241914,42	9.9593102	10,3429720
34	91044,32	220108,31	241759,52	9.9592528	10,3426364
33	91032,28	219938,40	241604,84	9.9591954	10,3423011
32	91020,24	219768,71	241450,38	9.9591380	10,3419659
31	91008,19	219599,23	241296,13	9.9590805	10,3416308
30	90996,13	219429,97	241142,10	9.9590229	10,3412960

24 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	LogTang
30	41469.32	45572,64	109894.79	9.6177270	9,6587041
31	41495,79	45607,77	109909.36	9.6180041	9,6590387
32	41522,26	45642,91	109923.95	9.6182809	9,6593733
33	41548,72	45678,06	109938.55	9.6185576	9,6597076
34	41575,18	45713,22	109953.17	9.6188341	9,6600418
35	41601,63	45748,39	109967.79	9.6191103	9,6603758
36	41628,08	45783,57	109982.43	9.6193864	9,6607097
37	41654.53	45818,76	109997.09	9.6196622	9,6610434
38	41680,97	45853,96	110011.76	9.6199378	9,6613769
39	41707,41	45889,17	110026.44	9.6202132	9,6617103
40	41733,85	45924,39	110041.13	9.6204884	9,6620434
41	41760,28	45959,62	110055.84	9.6207634	9,6623765
42	41786,71	45994,86	110070.56	9.6210382	9,6627093
43	41813,13	46030,11	110085.29	9.6213127	9,6630420
44	41839,55	46065,37	110100.04	9.6215871	9,6633745
45	41865,97	46100,64	110114.80	9.6218612	9,6637069
46	41892,39	46135,91	110129.57	9.6221351	9,6640391
47	41918,80	46171,19	110144.36	9.6224088	9,6643711
48	41945,21	46206,48	110159.16	9.6226824	9,6647030
49	41971,61	46241,78	110173.97	9.6229557	9,6650346
50	41998,01	46277,09	110188,79	9.6232287	9,6653662
51	42024,41	46312,42	110203.63	9.6235016	9,6656975
52	42050,80	46347,76	110218.49	9.6237743	9,6660288
53	42077,19	46383,11	110233.35	9.6240467	9,6663598
54	42103,58	46418,46	110248.23	9.6243190	9,6666907
55	42129,96	46453,82	110263.13	9.6245911	9,6670214
56	42156,34	46489,19	110278.03	9.6248629	9,6673519
57	42182,72	46524,57	110292.95	9.6251346	9,6676823
58	42209,09	46559,96	110307.89	9.6254060	9,6680126
59	42235,46	46595,36	110322.83	9.6256772	9,6683426
60	42261,83	46630,77	110337.79	9.6259483	9.6686725

65 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
30	90996,13	219429,97	241142,10	9.9590229	10,3412960
29	90984,06	219260,93	240988,29	9.9589653	10,3409613
28	90971,98	219092,10	240834,69	9.9589077	10,3406267
27	90959,90	218923,49	240681,32	9.9588500	10,3402924
26	90947,81	218755,10	240528,15	9.9587923	10,3399582
25	90935,71	218586,91	240375,20	9.9587345	10,3396242
24	90923,61	218418,94	240222,47	9.9586767	10.3392903
23	90911,50	218251,19	240069,95	9.9586188	10.3389566
22	90899,38	218083,64	239917,64	9.9585609	10,3386231
21	90887,25	217916,31	239765,55	9.9585030	10,3382897
20	90875.11	217749,20	239613,67	9.9584450	10,3379566
19	90862,97	217582,29	239462,01	9.9583869	10,3376235
18	90850,82	217415,59	239310,55	9.9583288	10,3372907
17	90838,66	217249,11	239159,31	9.9582707	10,3369580
16	90826,49	217082,83	239008,28	9.9582125	10,3366255
15	90814,32	216916,77	238857,46	9.9581543	10,3362931
14	90802,14	216750,91	238706,85	9.9580961	10,3359609
13	90789,95	216585,27	238556,45	9.9580378	10,3356289
12	90777,75	216419,83	238406,25	9.9579794	10,3352970
11	90765,54	216254,60	238256,27	9.9579210	10,3349654
10	90753,33	216089,58	238106,50	9.9578626	10,3346338
9	90741,11	215924,76	237956,93	9.9578041	10,3343025
8	90728,88	215760,15	237807,58	9.9577456	10,3339712
7	90716,64	215595,75	237658,43	9.9576870	10,3336402
6	90704.40	215431,56	237509,49	9.9576284	10,3333093
5	90692,15	215267,57	237360,75	9.9575697	10,3329786
4	90679,89	215103,78	237212,22	9.9575110	10,3326481
3	90667,62	214940,20	237063,90	9.9574522	10,3323177
2	90655,35	214776,83	236915,78	9.9573934	10,3319874
1	90643,07	214613,66	236767,87	9.9573346	10.3316574
0	90630,78	214450,69	236620,16	9.9572757	10,3313275

25 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
0	42261,83	46630,77	110337.79	9.6259483	9.6686725
1	42288,19	46666,19	110352.77	9.6262191	9.6690023
2	42314,55	46701,62	110367.75	9.6264897	9.6693319
3	42340,90	46737,06	110382.75	9.6267601	9.6696613
4	42367,25	46772,51	110397.77	9.6270303	9.6699906
5	42393.60	46807,97	110412,79	9.6273003	9.6703197
6	42419,94	46843,43	110427,83	9.6275701	9.6706486
7	42446,28	46878,90	110442,89	9.6278397	9.6709774
8	42472,62	46914,38	110457.95	9.6281090	9.6713060
9	42498,95	46949,88	110473.03	9.6283782	9.6716345
10	42525,28	46985,39	110488,13	9.6286472	9.6719628
11	42551,61	47020,90	110503,24	9.6289160	9.6722910
12	42577,93	47056,43	110518,36	9.6291845	9.6726190
13	42604,25	47091,96	110533.49	9.6294529	9.6729468
14	42630,56	47127,51	110548.64	9.6297211	9.6732745
15	42656,87	47163,06	110563.80	9.6299890	9.6736020
16	42683,18	47198,63	110578.98	9.6302568	9.6739294
17	42709,49	47234,20	110594.17	9.6305243	9.6742566
18	42735,79	47269,78	110609.37	9.6307917	9.6745836
19	42762,09	47305,38	110624.58	9.6310589	9.6749105
20	42788,38	47340,98	110639.81	9.6313258	9.6752372
21	42814,67	47376,59	110655.06	9.6315926	9.6755638
22	42840,95	47412,22	110670.31	9.6318591	9.6758902
23	42867,23	47447,85	110685.58	9.6321255	9.6762165
24	42893,51	47483,49	110700.87	9.6323916	9.6765426
25	42919,79	47519,14	110716,16	9.6326576	9.6768686
26	42946,06	47554,81	110731.47	9.6329233	9.6771944
27	42972,33	47590,48	110746.80	9.6331889	9.6775201
28	42998,59	47626,16	110762,14	9.6334542	9.6778456
29	43024,85	47661,85	110777.49	9.6337194	9.6781709
30	43051,11	47697,55	110792,85	9.6339844	9.6784961

64 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
60	90630,78	214450.69	236620,16	9.9572757	10,3313275
59	90618,48	214287,93	236472,65	9.9572168	10,3309977
58	90606.17	214125,37	236325,35	9.9571578	10.3306681
57	90593.86	213963,01	236178,26	9.9570988	10.3303387
56	90581,54	213800,85	236031,36	9.9570397	10,3300094
55	90569,21	213638,89	235884,67	9.9569806	10,3296803
54	90556.88	213477,14	235738,18	9.9569215	10,3293514
53	90544,54	213315,59	235591,89	9.9568623	10,3290226
52	90532,19	213154,23	235445,81	9.9568030	10,3286940
51	90519,83	212993,08	235299,92	9.9567437	10,3283655
50	90507,46	212832,13	235154,24	9.9566844	10,3280372
49	90495,09	212671,37	235008,75	9.9566250	10,3277090
48	90482,71	212510,82	234863,47	9.9565656	10,3273810
47	90470,32	212350,46	234718,38	9.9565061	10,3270532
46	90457,92	212190,30	234573,49	9.9564466	10,3267255
45	90445,51	212030,34	234428,80	9.9563870	10,3263980
44	90433,10	211870,57	234284,31	9.9563274	10,3260706
43	90420,68	211711,01	234140,02	9.9562678	10,3257434
42	90408,25	211551,64	233995,93	9.9562081	10,3254164
41	90395,82	211392,46	233852,03	9.9561483	10,3250895
40	90383,38	211233,48	233708,33	9.9560886	10,3247628
39	90370,93	211074,70	233564,82	9.9560287	10,3244362
38	90358,47	210916,11	233421,52	9.9559689	10,3241097
37	90346,00	210757,71	233278,40	9.9559089	10,3237835
36	90333,53	210599,51	233135,48	9.9558490	10,3234574
35	90321,05	210441,50	232992,76	9.9557890	10,3231314
34	90308,56	210283,69	232850,23	9.9557289	10,3228056
33	90296,06	210126,07	232707,90	9.9556688	10,3224799
32	90283,56	209968,64	232565,75	9.9556087	10,3221544
31	90271,05	209811,40	232423,81	9.9555485	10.3218291
30	90258,53	209654,36	232282,05	9.9554882	10,3215039

25 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
30	43051,11	47697,55	110792.85	9.6339844	9.6784961
31	43077,36	47733,26	110808.23	9.6342491	9.6788211
32	43103,61	47768,99	110823.63	9.6345137	9.6791460
33	43129,86	47804,72	110839.03	9.6347780	9.6794708
34	43156,10	47840,46	110854.45	9.6350422	9.6797953
35	43182,34	47876,21	110869.89	9.6353062	9.6801198
36	43208,57	47911,97	110885.33	9.6355699	9.6804440
37	43234,80	47947,74	110900.79	9.6358335	9.6807682
38	43261,03	47983,52	110916.27	9.6360969	9.6810921
39	43287,26	48019,32	110931.76	9.6363601	9.6814160
40	43313,48	48055,12	110947.26	9.6366231	9.6817396
41	43339,70	48090,93	110962.77	9.6368859	9.6820632
42	43365,91	48126,75	110978.30	9.6371484	9.6823865
43	43392,12	48162,58	110993.85	9.6374108	9.6827098
44	43418,33	48198,42	111009.41	9.6376731	9.6830328
45	43444,53	48234,27	111024.98	9.6379351	9.6833557
46	43470,73	48270,14	111040.56	9.6381969	9.6836785
47	43496,92	48306,01	111056.16	9.6384585	9.6840011
48	43523,11	48341,89	111071.77	9.6387199	9.6843236
49	43549,30	48377,78	111087.40	9.6389812	9.6846459
50	43575,48	48413,68	111103.04	9.6392422	9.6849681
51	43601,66	48449,59	111118.69	9.6395030	9.6852901
52	43627,84	48485,52	111134.36	9.6397637	9.6856120
53	43654,01	48521,45	111150.04	9.6400241	9.6859338
54	43680,18	48557,39	111165.73	9.6402844	9.6862553
55	43706,34	48593,34	111181.44	9.6405445	9.6865768
56	43732,50	48629,31	111197.16	9.6408044	9.6868981
57	43758,66	48665,28	111212.90	9.6410640	9.6872192
58	43784,82	48701,26	111228.65	9.6413235	9.6875402
59	43810,97	48737,26	111244.42	9.6415828	9.6878611
60	43837,12	48773,26	111260.19	9.6418420	9.6881818

64 Grad.

	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
0	90258,53	209654,36	232282,05	9,9554882	10,3215039
9	90246,00	209497,51	232140,49	9,9554280	10,3211789
8	90233,47	209340,84	231999,11	9,9553676	10,3208540
7	90220,93	209184,37	231857,94	9,9553073	10,3205292
6	90208,38	209028,09	231716,95	9,9552469	10,3202047
5	90195,82	208872,00	231576,15	9,9551864	10,3198803
4	90183,25	208716,10	231435,54	9,9551259	10,3195560
3	90170,68	208560.39	231295,13	9,9550653	10,3192318
2	90158,10	208404,86	231154,90	9,9550047	10,3189079
1	90145,51	208249,53	231014,86	9,9549441	10,3185840
20	90132,91	208094,38	230875,01	9,9548834	10,3182604
19	90120,31	207939,42	230735,35	9,9548227	10,3179368
18	90107,70	207784,65	230595,88	9,9547619	10,3176135
17	90095,08	207630,07	230456,60	9,9547011	10,3172902
16	90082,45	207475.67	230317,51	9,9546402	10,3169672
15	90069,82	207321,46	230178.60	9,9545793	10,3166443
14	90057,18	207167,43	230039,88	9,9545184	10,3163215
13	90044,53	207013.59	229901.34	9,9544574	10,3159989
12	90031,87	206859,93	229762,99	9,9543963	10,3156764
11	90019,21	206706,46	229624,83	9.9543352	10,3153541
10	90006,54	206553,18	229486,85	9,9542741	10,3150319
9	89993,86	206400,08	229349,06	9,9542129	10,3147099
8	89981,17	206247,16	229211,45	9,9541517	10,3143880
7	89968,48	206094,42	229074,03	9,9540904	10,3140662
6	89955,78	205941.87	228936,79	9,9540291	10,3137447
5	89943,07	205789,50	228799,74	9,9539677	10,3134232
4	89930,35	205637,32	228662,86	9,9539063	10,3131019
3	89917,62	205485,31	228526,18	9,9538448	10,3127808
2	89904,89	205333.49	228389,67	9,9537833	10,3124598
1	89892.15	205181,84	228253,34	9,9537218	10,3121389
0	89879,40	205030,38	228117,20	9,9536602	10,3118182

26 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Ta*
0	43837.12	48773.26	111260.19	9.6418420	9.688181
1	43863.26	48809.27	111275.98	9.6421009	9.688502
2	43889.40	48845.30	111291.79	9.6423596	9.688822
3	43915.53	48881.33	111307.61	9.6426182	9.689143
4	43941.66	48917.37	111323.45	9.6428765	9.6894631
5	43967.79	48953.43	111339.30	9.6431347	9.689783
6	43993.92	48989.49	111355.16	9.6433926	9.690103
7	44020.04	49025.57	111371.03	9.6436504	9.6904226
8	44046.16	49061.66	111386.92	9.6439080	9.6907422
9	44072.27	49097.75	111402.82	9.6441654	9.6910616
10	44098.38	49133.86	111418.74	9.6444226	9.6913809
11	44124.48	49169.97	111434.67	9.6446796	9.6917000
12	44150.58	49206.10	111450.62	9.6449365	9.6920189
13	44176.68	49242.24	111466.58	9.6451931	9.6923378
14	44202.78	49278.38	111482.55	9.6454496	9.6926565
15	44228.87	49314.54	111498.54	9.6457058	9.6929750
16	44254.96	49350.71	111514.54	9.6459619	9.6932934
17	44281.04	49386.89	111530.56	9.6462178	9.6936117
18	44307.12	49423.08	111546.59	9.6464735	9.6939298
19	44333.20	49459.28	111562.63	9.6467290	9.6942478
20	44359.27	49495.49	111578.69	9.6469844	9.6945656
21	44385.34	49531.71	111594.76	9.6472395	9.6948833
22	44411.40	49567.94	111610.84	9.6474945	9.6952009
23	44437.46	49604.18	111626.94	9.6477492	9.6955183
24	44463.52	49640.43	111643.06	9.6480038	9.6958355
25	44489.57	49676.69	111659.19	9.6482582	9.6961527
26	44515.62	49712.97	111675.33	9.6485124	9.6964697
27	44541.67	49749.25	111691.49	9.6487665	9.6967865
28	44567.71	49785.54	111707.66	9.6490203	9.6971032
29	44593.75	49821.85	111723.84	9.6492740	9.6974198
30	44619.78	49858.16	111740.04	9.6495274	9.6977363

63 Grad.

Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
9879,40	205030,38	228117,20	9,9536602	10,3118182
9866,65	204879.10	227981,24	9,9535985	10,3114977
9853,89	204728,00	227845,46	9,9535369	10,3111773
9841.12	204577,08	227709,86	9,9534751	10,3108570
9828,34	204426,34	227574,45	9,9534134	10,3105369
9815,55	204275,78	227439,21	9,9533515	10,3102169
9802.76	204125.40	227304,15	9,9532897	10,3098970
9789,96	203975,19	227169,27	9,9532278	10,3095774
9777,15	203825,17	227034,57	9,9531658	10,3092578
89764,33	203675,32	226900,05	9,9531038	10,3089384
89751,51	203525,65	226765,71	9,9530418	10,3086191
89738,68	203376,15	226631,55	9,9529797	10,3083000
89725,84	203226.83	226497,56	9,9529175	10,3079811
89712,99	203077,69	226363,75	9,9528553	10,3076622
89700,13	202928,73	226230,12	9,9527931	10,3073435
89687,27	202779,94	226096,67	9,9527308	10,3070250
89674,40	202631,33	225963,39	9,9526685	10,3067066
89661,52	202482.89	225830,29	9,9526061	10,3063883
89648,64	202334,62	225697,36	9,9525437	10,3060702
89635,75	202186,53	225564,61	9.9524813	10,3057522
89622,85	202038,62	225432.04	9,9524188	10,3054344
89609,94	201890,88	225299,64	9,9523562	10,3051167
89597,03	201743,31	225167,41	9,9522936	10,3047991
89584,11	201595,92	225035,36	9,9522310	10,3044817
89571,18	201448,69	224903,48	9,9521683	10,3041645
89558,24	201301,64	224771,78	9,9521055	10,3038473
89545,29	201154,77	224640,24	9,9520428	10,3035303
89532,34	201008,06	224508.89	9,9519799	10,3032135
89519,38	200861,53	224377,70	9,9519171	10,3028968
89506,41	200715,16	224246,69	9,9518541	10,3025802
89493,43	200568,97	224115,84	9,9517912	10,3022637

26 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. T
30	44619.78	49858,16	111740.04	9.6495274	9.6977
31	44645.81	49894,49	111756.25	9.6497807	9.6980
32	44671,84	49930,82	111772.48	9.6500338	9.6983
33	44697.86	49967.17	111788.72	9.6502868	9.6986
34	44723.88	50003,52	111804.98	9.6505395	9.6990
35	44749,90	50039,89	111821.25	9.6507920	9.69931
36	44775.91	50076,27	111837.53	9.6510444	9.69963
37	44801,92	50112,66	111853.83	9.6512966	9.69994
38	44827,92	50149,06	111870.14	9.6515486	9.7002
39	44853.92	50185,47	111886.47	9.6518004	9.70057
40	44879.92	50221,89	111902.81	9.6520521	9.70089
41	44905.91	50258,32	111919.16	9.6523035	9.7012
42	44931,90	50294,76	111935.53	9.6525548	9.70152
43	44957.89	50331,21	111951.91	9.6528059	9.70183
44	44983.87	50367,67	111968.31	9.6530568	9.70215
45	45009.85	50404,15	111984.72	9.6533075	9.70246
46	45035.82	50440,63	112001.15	9.6535581	9.70278
47	45061,79	50477,13	112017.59	9.6538084	9.70309
48	45087.76	50513,63	112034.05	9.6540586	9.70340
49	45113,72	50550,15	112050.52	9.6543086	9.70372
50	45139,68	50586,68	112067.00	9.6545584	9.70403
51	45165,63	50623,22	112083.50	9.6548081	9.70434
52	45191,58	50659,77	112100.01	9.6550575	9.70466
53	45217.53	50696,33	112116.53	9.6553068	9.70497
54	45243.47	50732,90	112133.07	9.6555559	9.70528
55	45269.41	50769,48	112149.63	9.6558048	9.70560
56	45295.35	50806,07	112166.20	9.6560536	9.70591
57	45321,28	50842,67	112182.78	9.6563021	9.70622
58	45347.21	50879,28	112199.38	9.6565505	9.70654
59	45373.13	50915,91	112216.00	9.6567987	9.70685
60	45399.05	50952,54	112232.62	9.6570468	9.70716

63 Grad.

Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
89493,43	200568,97	224115,84	9.9517912	10,3022637
89480,45	200422,95	223985,17	9.9517282	10,3019474
89467,46	200277,10	223854,67	9.9516651	10,3016313
89454,46	200131,42	223724,35	9.9516020	10,3013153
89441,45	199985,90	223594,19	9.9515389	10,3009994
89428,44	199840,56	223464,20	9.9514757	10,3006836
89415,42	199695,39	223334,38	9.9514124	10,3003680
89402,39	199550,38	223204,74	9.9513492	10,3000526
89389,36	199405,54	223075,26	9.9512858	10,2997372
89376,32	199260,87	222945,95	9.9512224	10,2994220
89363,27	199116,37	222816,81	9.9511590	10,2991070
89350,21	198972,04	222687,83	9.9510956	10,2987920
89337,14	198827,87	222559,03	9.9510320	10,2984773
89324,06	198683,87	222430,39	9.9509685	10,2981626
89310,98	198540,03	222301,92	9.9509049	10,2978481
89297,89	198396,36	222173,62	9.9508412	10,2975337
89284,79	198252,86	222045,48	9.9507775	10,2972195
89271,69	198109,52	221917,51	9.9507138	10,2969054
89258,58	197966,35	221789,71	9.9506500	10,2965914
89245,46	197823,34	221662,07	9.9505861	10,2962775
89232,33	197680,50	221534,60	9.9505223	10,2959638
89219,20	197537,82	221407,30	9.9504583	10,2956503
89206,06	197395,31	221280,16	9.9503944	10,2953368
89192,91	197252,96	221153,18	9.9503303	10,2950235
89179,75	197110,77	221026,37	9.9502663	10,2947103
89166,59	196968,74	220899,72	9.9502022	10,2943973
89153,42	196826,88	220773,23	9.9501380	10,2940844
89140,24	196685,18	220646,91	9.9500738	10,2937716
89127,05	196543,64	220520,75	9.9500095	10,2934590
89113,85	196402,27	220394,76	9.9499452	10,2931465
89100,65	196261,05	220268,93	9.9498809	10,2928342

27 Grad.

Minut.	Sinus	Tang.	Secant	*Log.Sin.*	*Log.*
0	45399,05	50952,54	112232,62	9,6570468	9.707
1	45424,97	50989,19	112249,26	9,6572946	9.707
2	45450,88	51025,85	112265,92	9,6575423	9.707
3	45476,79	51062,52	112282,59	9,6577898	9.708
4	45502,69	51099,19	112299,28	9,6580371	9.708
5	45528,59	51135,88	112315,98	9,6582842	9.708
6	45554.49	51172,59	112332,69	9,6585312	9.709
7	45580,38	51209,30	112349.42	9,6587780	9.709
8	45606,27	51246,02	112366,16	9,6590246	9.709
9	45632,16	51282,75	112382,92	9,6592710	9.709
10	45658,04	51319,50	112399,69	9,6595173	9.710
11	45683,92	51356,25	112416,48	9,6597634	9.710
12	45709,79	51393,02	112433.28	9,6600093	9.710
13	45735,66	51429,80	112450,10	9,6602550	9.711
14	45761,53	51466,58	112466,93	9,6605005	9.711
15	45787,39	51503,38	112483,77	9,6607459	9.711
16	45813,25	51540,19	112500.63	9,6609911	9.7121
17	45839,10	51577,02	112517,50	9,6612361	9.7124
18	45864.95	51613,85	112534.39	9,6614810	9.7127
19	45890,80	51650,69	112551,29	9,6617257	9.7130
20	45916,64	51687,55	112568,21	9,6619701	9.7133
21	45942,48	51724,41	112585,14	9,6622145	9.7136
22	45968,32	51761,29	112602,09	9,6624586	9.7140
23	45994,15	51798,18	112619,05	9,6627026	9.7143
24	46019,98	51835,08	112636,03	9,6629464	9.7146
25	46045,80	51871,99	112653,02	9,6631900	9.7149
26	46071.62	51908,91	112670,03	9,6634335	9.7152
27	46097,44	51945,84	112687,05	9,6636768	9.7155
28	46123,25	51982,78	112704,08	9.6639199	9.7158
29	46149,06	52019,74	112721,13	9,6641628	9.7161
30	46174,86	52056,70	112738,19	9,6644056	9.7164

62 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang.
0	89100,65	196261,05	220268,93	9.9498809	10,2928341
9	89087.44	196120,00	220143,26	9.9498165	10,2925219
8	89074,22	195979,10	220017,75	9.9497521	10,2922098
7	89061,00	195838,37	219892,40	9.9496876	10,2918978
6	89047,77	195697,80	219767,21	9.9496230	10,2915859
5	89034,53	195557,39	219642,19	9.9495585	10,2912742
4	89021,28	195417,13	219517,33	9.9494938	10,2909626
3	89008,02	195277,04	219392,62	9.9494292	10,2906512
2	88994,76	195137,11	219268,08	9.9493645	10,2903399
1	88981,49	194997,33	219143,70	9.9492997	10,2900287
0	88968,21	194857,71	219019,47	9.9492349	10,2897176
9	88954,93	194718,26	218895,41	9.9491700	10,2894067
8	88941,64	194578,96	218771,50	9.9491051	10,2890959
7	88928,34	194439,81	218647,75	9.9490402	10,2887852
6	88915,03	194300,83	218524,17	9.9489752	10,2884746
5	88901,71	194162,00	218400,74	9.9489101	10,2881642
4	88888,39	194023,33	218277,46	9.9488450	10,2878539
3	88875,06	193884,81	218154,35	9.9487799	10,2875438
2	88861,72	193746,45	218031,39	9.9487147	10,2872338
1	88848,37	193608,25	217908,59	9.9486495	10,2869239
0	88835,02	193470,20	217785,94	9.9485842	10,2866141
9	88821,66	193332,31	217663,46	9.9485189	10,2863044
8	88808,29	193194,57	217541,12	9.9484535	10,2859949
7	88794,92	193056,98	217418,95	9.9483881	10,2856855
6	88781,54	192919,56	217296,93	9.9483227	10,2853763
5	88768,15	192782,28	217175,06	9.9482572	10,2850671
4	88754,75	192645,16	217053,35	9.9481916	10,2847581
3	88741,34	192508,19	216931,80	9.9481260	10,2844492
2	88727,93	192371,38	216810,40	9.9480604	10,2841405
1	88714,51	192234,72	216689,15	9.9479947	10,2838318
0	88701,08	192098,21	216568,06	9.9479289	10,2835233

27 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Ta*
30	46174,86	52056,70	112738,19	9,6644056	9.716476
31	46200,66	52093,68	112755,27	9,6646482	9.716785
32	46226,46	52130,67	112772,37	9,6648906	9.717093
33	46252,25	52167,67	112789,48	9,6651329	9.717401
34	46278,04	52204,68	112806,60	9,6653749	9.717709
35	46303,82	52241,70	112823,74	9,6656168	9.718017
36	46329,60	52278,74	112840,89	9,6658586	9.718325
37	46355,38	52315,78	112858,06	9,6661001	9.718632
38	46381,15	52352,84	112875,24	9,6663415	9.718940
39	46406,92	52389,90	112892,44	9,6665828	9.719247
40	46432,69	52426,98	112909,65	9,6668238	9.719554
41	46458,45	52464,07	112926,88	9,6670647	9.719862
42	46484,21	52501,17	112944,12	9,6673054	9.720169
43	46509,96	52538,29	112961,37	9,6675459	9.720475
44	46535,71	52575,41	112978,64	9,6677863	9.720782
45	46561,45	52612,54	112995,93	9,6680265	9.721089
46	46587,19	52649,69	113013.23	9,6682665	9.721395
47	46612,93	52686,85	113030.55	9,6685064	9.721702
48	46638,66	52724,02	113047,88	9,6687461	9.722008
49	46664,39	52761,20	113065,22	9,6689856	9.722314
50	46690,12	52798,39	113082,58	9,6692250	9.722620
51	46715,84	52835,59	113099,96	9,6694642	9.722926
52	46741,56	52872,81	113117,35	9,6697032	9.723232
53	46767,27	52910,04	113134,75	9,6699420	9.723538
54	46792,98	52947,27	113152,17	9,6701807	9.723843
55	46818.69	52984,52	113169,61	9.6704192	9.724149
56	46844,39	53021,78	113187,06	9,6706576	9.724454
57	46870,09	53059,06	113204,52	9,6708958	9.724759
58	46895,78	53096,34	113222,00	9,6711338	9.725064
59	46921,47	53133,64	113239,50	9,6713716	9.725369
60	46947,16	53170,94	113257,01	9,6716093	9.725674

62 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tang*
30	88701,08	192098,21	216568,06	9.9479289	10,2835233
29	88687,64	191961,86	216447,12	9.9478631	10,2832149
28	88674,20	191825,65	216326,33	9.9477973	10,2829067
27	88660,75	191689,60	216205,70	9.9477314	10,2825986
26	88647,29	191553,70	216085,22	9.9476655	10,2822906
25	88633,83	191417,95	215964,89	9.9475995	10,2819827
24	88620,36	191282,36	215844,71	9.9475335	10,2816749
23	88606,83	191146,91	215724,69	9.9474674	10,2813637
22	88593,39	191011,62	215604,82	9.9474013	10,2810598
21	88579,89	190876,47	215485,10	9.9473352	10,2807524
20	88566,39	190741,47	215365,53	9.9472689	10,2804451
19	88552,88	190606,63	215246,11	9.9472027	10,2801380
18	88539,36	190471,93	215126,84	9 9471364	10,2798310
17	88525,83	190337,38	215007,72	9.9470700	10,2795241
16	88512,30	190202,99	214888,75	9.9470036	10,2792173
15	88498,76	190068,74	214769,93	9.9469372	10,2789107
14	88485,22	189934,64	214651,27	9.9468707	10,2786042
13	88471,66	189800,68	214532,75	9.9468042	10,2782978
12	88458,10	189666,88	214414,37	9.9467376	10,2779915
11	88444,53	189533,22	214296,15	9.9466710	10,2776853
10	88430,95	189399,71	214178,08	9.9466043	10,2773793
9	88417,36	189266,34	214060,15	9.9465376	10,2770734
8	88403,77	189133,13	213942,38	9.9464708	10,2767676
7	88390,17	189000,06	213824,75	9.9464040	10,2764619
6	88376,56	188867,13	213707,26	9.9463371	10,2761564
5	88362,94	188734,36	213589,93	9.9462702	10,2758510
4	88349,32	188601,72	213472,74	9.9462032	10,2755457
3	88335.69	188469,24	213355,70	9.9461362	10,2752405
2	88322,05	188336,90	213238.80	9.9460692	10,2749354
1	88308,41	188204,70	213122,05	9.9460021	10,2746305
0	88294,76	188072,65	213005,45	9.9459349	10,2743256

28 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
0	46947,16	53170,94	113257,01	9.6716093	9.7256744
1	46972,84	53208,26	113274,53	9,6718468	9.7259791
2	46998,52	53245,59	113292,07	9,6720841	9.7262837
3	47024,19	53282,93	113309,62	9,6723213	9.7265881
4	47049,86	53320,29	113327,19	9,6725583	9.7268925
5	47075,53	53357,65	113344,78	9,6727952	9.7271967
6	47101,19	53395,03	113362,38	9,6730319	9.7275008
7	47126,85	53432,42	113379,99	9,6732684	9.7278048
8	47152,50	53469,82	113397,62	9,6735047	9.7281087
9	47178,15	53507,23	113415,27	9,6737409	9.7284124
10	47203,80	53544,65	113432,93	9,6739769	9.7287161
11	47229,44	53582,08	113450,60	9,6742128	9.7290196
12	47255,08	53619,53	113468.29	9,6744485	9.7293230
13	47280,71	53656,99	113486.00	9,6746840	9.7296263
14	47306,34	53694,46	113503,72	9,6749194	9.7299295
15	47331,97	53731,94	113521,46	9,6751546	9.7302325
16	47357,59	53769,43	113539,21	9,6753896	9.7305354
17	47383,21	53806,94	113556,98	9,6756245	9.7308383
18	47408,82	53844,45	113574,76	9,6758592	9.7311410
19	47434,43	53881,98	113592,55	9,6760937	9.7314436
20	47460,04	53919,52	113610,36	9,6763281	9.7317460
21	47485.64	53957,07	113628,19	9,6765623	9.7320484
22	47511,24	53994,64	113646,03	9,6767963	9.7323506
23	47536,83	54032,21	113663,89	9,6770302	9.7326527
24	47562,42	54069,80	113681,76	9,6772640	9.7329547
25	47588,01	54107,40	113699,65	9,6774975	9.7332566
26	47613,59	54145,01	113717,55	9,6777309	9.7335584
27	47639,17	54182,63	113735,47	9,6779642	9.7338601
28	47664,74	54220,27	113753,40	9,6781972	9.7341616
29	47690,31	54257,91	113771,35	9,6784301	9.7344631
30	47715,88	54295,57	113789,32	9,6786629	9.7347644

61 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
60	88294,76	188072,65	213005,45	9.9459349	10,2743256
59	88281,10	187940,74	212888,99	9.9458677	10,2740209
58	88267,43	187808,98	212772,67	9.9458005	10,2737163
57	88253,75	187677,36	212656,51	9.9457332	10,2734119
56	88240,07	187545,88	212540,48	9.9456659	10,2731075
55	88226,38	187414,55	212424,60	9.9455985	10,2728033
54	88212,68	187283,36	212308,87	9.9455310	10,2724992
53	88198,98	187152,31	212193,28	9.9454636	10,2721952
52	88185,27	187021,41	212077,83	9.9453960	10,2718913
51	88171,55	186890,64	211962,53	9.9453285	10,2715876
50	88157,82	186760,03	211847,37	9.9452609	10,2712839
49	88144,09	186629,55	211732,35	9.9451932	10,2709804
48	88130,35	186499,21	211617,48	9.9451255	10,2706770
47	88116,60	186369,02	211502,74	9.9450577	10,2703737
46	88102,84	186238,96	211388,15	9.9449899	10,2700705
45	88089,07	186109,05	211273,71	9.9449220	10,2697675
44	88075,30	185979,28	211159,40	9.9448541	10,2694646
43	88061,52	185849,65	211045,23	9.9447862	10,2691617
42	88047,73	185720,15	210931,21	9.9447182	10,2688590
41	88033,94	185590,80	210817,33	9.9446501	10,2685564
40	88020,14	185461,59	210703,59	9.9445821	10,2682540
39	88006,33	185332,52	210589,98	9.9445139	10,2679516
38	87992,51	185203,58	210476,52	9.9444457	10,2676494
37	87978,69	185074,79	210363,20	9.9443775	10,2673473
36	87964,86	184946,13	210250,02	9.9443092	10,2670453
35	87951,02	184817,61	210136,98	9.9442409	10,2667434
34	87937,17	184689,23	210024,08	9.9441725	10,2664416
33	87923,32	184560,99	209911,31	9.9441041	10,2661399
32	87909,46	184432,89	209798,69	9.9440356	10,2658384
31	87895,59	184304,92	209686,20	9.9439671	10,2655369
30	87881,71	184177,09	209573,85	9.9438985	10,2652356

28 Grad.

Minut.	Sinus	Tang.	Secant	Log. Sin.	Log. Tan
30	47715,88	54295,57	113789,32	9.6786629	9.7347644
31	47741,44	54333,24	113807,30	9,6788955	9.7350656
32	47767,00	54370,92	113825,29	9,6791279	9.7353667
33	47792,55	54408,62	113843,30	9,6793602	9.7356677
34	47818,10	54446,32	113861,33	9,6795923	9.7359685
35	47843,64	54484,04	113879,37	9,6798243	9.7362693
36	47869,18	54521,77	113897,43	9,6800560	9.7365699
37	47894,72	54559,51	113915,50	9,6802877	9.7368705
38	47920,26	54597,26	113933,59	9,6805191	9.7371709
39	47945,79	54635,03	113951.69	9,6807504	9.7374712
40	47971,31	54672,81	113969,81	9,6809816	9.7377714
41	47996.83	54710,60	113987,94	9,6812126	9.7380715
42	48022,35	54748,40	114006,09	9,6814434	9.7383714
43	48047,86	54786,21	114024,25	9,6816741	9.7386713
44	48073,37	54824,04	114042,43	9,6819046	9.7389710
45	48098,88	54861,88	114060,62	9,6821349	9.7392707
46	48124,38	54899,73	114078,83	9,6823651	9.7395702
47	48149,88	54937,59	114097,06	9,6825952	9.7398696
48	48175,37	54975,46	114115,30	9,6828250	9.7401689
49	48200,86	55013,35	114133,56	9,6830548	9.7404681
50	48226,34	55051,25	114151,83	9,6832843	9.7407672
51	48251,82	55089,16	114170,12	9,6835137	9.7410662
52	48277,30	55127,08	114188,42	9,6837430	9.7413650
53	48302,77	55165,02	114206.74	9,6839720	9.7416638
54	48328,24	55202,97	114225,07	9,6842010	9.7419624
55	48353,70	55240,93	114243,42	9,6844297	9.7422609
56	48379,16	55278,90	114261,79	9,6846583	9.7425594
57	48404,62	55316,88	114280,17	9,6848868	9.7428577
58	48430,07	55354,88	114298,57	9,6851151	9.7431559
59	48455,52	55392,88	114316,98	9,6853432	9.7434540
60	48480,96	55430,9	114335,41	9,6855712	9.7437520

61 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
30	87881,71	184177,09	209573,85	9.9438985	10,2652356
29	87867,83	184049,39	209461,64	9.9438299	10,2649344
28	87853,94	183921,84	209349,57	9.9437612	10,2646333
27	87840,04	183794,42	209237,64	9.9436925	10,2643323
26	87826,13	183667,13	209125,84	9.9436238	10,2640315
25	87812,22	183539,99	209014,18	9.9435549	10,2637307
24	87798,30	183412,97	208902,65	9.9434861	10,2634301
23	87784,37	183286,10	208791,27	9.9434172	10,2631295
22	87770,43	183159,36	208680,02	9.9433482	10,2628291
21	87756,49	183032,75	208568,90	9.9432792	10,2625288
20	87742,54	182906,28	208457,92	9.9432102	10,2622286
19	87728,58	182779,94	208347,08	9.9431411	10,2619285
18	87714,61	182653,74	208236,37	9.9430720	10,2616286
17	87700,64	182527,67	208125,80	9.9430028	10,2613287
16	87686,66	182401,73	208015,36	9.9429335	10,2610290
15	87672,67	182275,93	207905,06	9.9428643	10,2607293
14	87658,68	182150,26	207794,89	9.9427949	10,2604298
13	87644,68	182024,73	207684,86	9.9427255	10,2601304
12	87630,67	181899,32	207574,96	9.9426561	10,2598311
11	87616,65	181774,05	207465,19	9.9425866	10,2595319
10	87602,62	181648,92	207355,56	9.9425171	10,2592328
9	87588,59	181523,91	207246,06	9.9424476	10,2589338
8	87574,55	181399,04	207136,70	9.9423779	10,2586350
7	87560,50	181274,30	207027,46	9.9423083	10,2583362
6	87546,45	181149,69	206918,36	9.9422386	10,2580376
5	87532,39	181025,21	206809,40	9.9421688	10,2577391
4	87518,32	180900,86	206700,56	9.9420990	10,2574406
3	87504,24	180776,64	206591,86	9.9420291	10,2571423
2	87490,16	180652,56	206483,28	9.9419592	10,2568441
1	87476,07	180528,60	206374,84	9.9418893	10,2565460
0	87461,97	180404,78	206266,53	9.9418193	10,2562480

29 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
0	48480,96	55430,90	114335.41	9.6855712	9.7437520
1	48506,40	55468,94	114353.85	9.6857991	9.7440499
2	48531,84	55506,98	114372,31	9.6860267	9.7443476
3	48557.27	55545.04	114390.78	9.6862542	9.7446453
4	48582,70	55583.11	114409.27	9.6864816	9.7449428
5	48608,12	55621,19	114427.78	9.6867088	9.7452403
6	48633.54	55659,29	114446.30	9.6869359	9.7455376
7	48658,95	55697.39	114464.84	9.6871628	9.7458349
8	48684,36	55735.51	114483.39	9.6873895	9.7461320
9	48709,77	55773,64	114501.96	9.6876161	9.7464290
10	48735.17	55811,79	114520,55	9.6878425	9.7467259
11	48760,57	55849,94	114539.15	9.6880688	9.7470227
12	48785,97	55888,11	114557.76	9.6882949	9.7473194
13	48811,36	55926,29	114576.39	9.6885209	9.7476160
14	48836,74	55964,48	114595.04	9.6887467	9.7479125
15	48862,12	56002,69	114613.70	9.6889723	9.7482089
16	48887,50	56040,91	114632,38	9.6891978	9.7485052
17	48912,87	56079,14	114651.08	9.6894232	9.7488013
18	48938,24	56117,38	114669.79	9.6896484	9.7490974
19	48963,61	56155,64	114688.52	9.6898734	9.7493934
20	48988,97	56193,91	114707.26	9.6900983	9.7496892
21	49014.33	56232,19	114726.02	9.6903231	9.7499850
22	49039,68	56270,48	114744.79	9.6905476	9.7502806
23	49065,03	56308,79	114763.58	9.6907721	9.7505762
24	49090.37	56347.10	114782.39	9.6909964	9.7508716
25	49115,71	56385,43	114801,21	9.6912205	9.7511669
26	49141,05	56423,78	114820.05	9.6914445	9.7514622
27	49166,37	56462,13	114838.90	9.6916683	9.7517573
28	49191,71	56500,50	114857.77	9.6918919	9.7520523
29	49217,04	56538,88	114876.65	9.6921155	9.7523472
30	49242,36	56577,28	114895.55	9.6923388	9.7526420

60 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
60	87461,97	180404,78	206266,53	9.9418193	10,2562480
59	87447.86	180281,08	206158,36	9.9417492	10,2559501
58	87433.75	180157.51	206050,31	9.9416791	10,2556524
57	87419,63	180034,08	205942.39	9.9416090	10,2553547
56	87405.50	179910,77	205834,60	9.9415388	10,2550572
55	87391.36	179787.59	205726,95	9.9414685	10,2547597
54	87377.22	179664.54	205619.42	9.9413982	10,2544624
53	87363.07	179541,62	205512,03	9.9413279	10,2541651
52	87348,91	179418,83	205404,76	9.9412575	10,2538680
51	87334.75	179296,16	205297.62	9.9411871	10,2535710
50	87320,58	179173,62	205190,61	9.9411166	10,2532741
49	87306,40	179051,21	205083.73	9.9410461	10,2529773
48	87292,21	178928,93	204976,98	9.9409755	10,2526806
47	87278,01	178806,78	204870,36	9,9409048	10,2523840
46	87263,81	178684,75	204763,86	9,9408342	10,2520875
45	87249,60	178562,85	204657.50	9.9407634	10,2517911
44	87235.38	178441,07	204551,26	9.9406927	10,2514948
43	87221,16	178319,43	204445,15	9.9406219	10,2511987
42	87206,93	178197,90	204339,16	9.9405510	10,2509026
41	87192,69	178076,51	204233,30	9,9404801	10,2506066
40	87178,44	177955,24	204127.57	9.9404091	10,2503108
39	87164,19	177834,09	204021,97	9.9403381	10,2500150
38	87149,93	177713,07	203916,49	9.9402670	10,2497194
37	87135,66	177592,18	203811,14	9.9401959	10,2494238
36	87121,38	177471,41	203705,92	9.9401248	10,2491284
35	87107,10	177350,76	203600,82	9.9400535	10,2488331
34	87092,81	177230,24	203495,85	9.9399823	10,2485378
33	87078,51	177109,85	203391,00	9.9399110	10,2482427
32	87064,20	176989,58	203286,27	9.9398396	10,2479477
31	87049,89	176869,43	203181,68	9.9397682	10,2476528
30	87035.57	176749,40	203077,20	9.9396968	10,2473580

29 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Ta
30	49242,36	56577,28	114895.55	9.6923388	9.7526420
31	49267,67	56615,68	114914.47	9.6925620	9.7529368
32	49292,98	56654,10	114933.40	9.6927851	9.7532314
33	49318,29	56692,53	114952.35	9.6930080	9.7535259
34	49343,59	56730,98	114971.32	9.6932308	9.7538203
35	49368,89	56769,44	114990.30	9.6934534	9.7541140
36	49394,19	56807,91	115009.30	9.6936758	9.7544088
37	49419,43	56846,39	115028.31	9.6938981	9.7547029
38	49444,77	56884,88	115047.34	9.6941203	9.7549969
39	49470,05	56923,39	115066.38	9.6943423	9.7552908
40	49495,33	56961,91	115085.44	9.6945642	9.7555846
41	49520,60	57000,45	115104.52	9.6947859	9.7558783
42	49545,87	57038,99	115123.61	9.6950074	9.7561718
43	49571,13	57077,55	115142.72	9.6952288	9.7564653
44	49596,39	57116,12	115161.85	9.6954501	9.7567587
45	49621,65	57154,71	115180.99	9.6956712	9.7570520
46	49646,90	57193,31	115200.15	9.6958922	9.7573452
47	49672,15	57231,92	115219.32	9.6961130	9.7576383
48	49697.40	57270,54	115238.51	9.6963336	9.7579313
49	49722,64	57309,18	115257.72	9.6965541	9.7582242
50	49747,87	57347,83	115276.94	9.6967745	9.7585170
51	49773,10	57386,49	115296.18	9.6969947	9.7588096
52	49798,33	57425,16	115315.43	9.6972148	9.7591022
53	49823,55	57463,85	115334.70	9.6974347	9.7593947
54	49848,77	57502,55	115353.99	9.6976545	9.7596871
55	49873,99	57541,26	115373.29	9.6978741	9.7599794
56	49899,20	57579,99	115392.61	9.6980936	9.7602716
57	49924,41	57618,73	115411.95	9.6983129	9.7605637
58	49949,61	57657,48	115431.30	9.6985321	9.7608557
59	49974,81	57696,25	115450.67	9.6987511	9.7611476
60	50000,00	57735,03	115470.05	9.6989700	9.7614394

60 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
30	87035.57	176749,40	203077,20	9.9396968	10,2473580
29	87021,24	176629,50	202972,86	9.9396253	10,2470632
28	87006,90	176509,72	202868,63	9.9395537	10,2467686
27	86992.56	176390,07	202764.53	9.9394821	10,2464741
26	86978,21	176270,53	202660,56	9.9394105	10,2461797
25	86963,85	176151,12	202556,70	9.9393388	10,2458854
24	86949.49	176031,83	202452,97	9.9392671	10.2455912
23	86935,12	175912,67	202349.37	9.9391953	10,2452971
22	86920,74	175793,62	202245,89	9.9391234	10,2450031
21	86906,35	175674,70	202142,53	9.9390515	10,2447092
20	86891,96	175555,90	202039,29	9.9389796	10,2444154
19	86877,56	175437,22	201936,17	9.9389076	10,2441217
18	86863.15	175318,66	201833,18	9.9388356	10,2438282
17	86848,73	175200,23	201730,31	9.9387635	10,2435347
16	86834,31	175081,91	201627,56	9.9386914	10,2432413
15	86819,88	174963,71	201524,94	9.9386192	10,2429480
14	86805,44	174845,64	201422,43	9.9385470	10,2426548
13	86791,00	174727,68	201320,05	9.9384747	10,2423617
12	86776,55	174609,84	201217,79	9.9384024	10,2420687
11	86762,09	174492,13	201115,64	9.9383300	10,2417758
10	86747,62	174374,53	201013,62	9.9382576	10,2414830
9	86733,14	174257,05	200911,72	9.9381851	10,2411904
8	86718,66	174139,69	200809,94	9.9381126	10,2408978
7	86704,17	174022,45	200708,28	9.9380400	10,2406053
6	86689,67	173905,33	200606,74	9.9379674	10,2403129
5	86675,17	173788,33	200505,32	9.9378947	10,2400206
4	86660,66	173671,44	200404,02	9.9378220	10,2397284
3	86646,14	173554,68	200302,83	9.9377492	10,2394363
2	86631,61	173438,03	200201,77	9.9376764	10,2391443
1	86617,08	173321,49	200100,83	9.9376035	10.2388524
0	86602,54	173205,08	200000,00	9.9375306	10,2385606

30 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	LogTang
0	50000,00	57735,03	115470.05	9.6989700	9.7614394
1	50025,19	57773,82	115489.45	9.6991887	9.7617311
2	50050,38	57812,62	115508.87	9.6994073	9.7620227
3	50075,56	57851,44	115528.30	9.6996258	9.7623142
4	50100,74	57890,27	115547.75	9.6998441	9.7626056
5	50125,91	57929,11	115567.22	9.7000622	9.7628969
6	50151,08	57967,97	115586,70	9.7002802	9.7631881
7	50176,24	58006,84	115606.20	9.7004981	9.7634792
8	50201,40	58045,73	115625.72	9.7007158	9.7637702
9	50226,55	58084,62	115645.25	9.7009334	9.7640612
10	50251,70	58123,53	115664.80	9.7011508	9.7643520
11	50276,85	58162,45	115684.36	9.7013681	9.7646427
12	50301,99	58201,39	115703.94	9.7015852	9.7649334
13	50327,13	58240,34	115723.54	9.7018022	9.7652239
14	50352,27	58279,30	115743.15	9.7020190	9.7655143
15	50377.40	58318,28	115762.78	9.7022357	9.7658047
16	50402,53	58357,27	115782.43	9.7024523	9.7660949
17	50427.65	58396,27	115802.09	9.7026687	9.7663851
18	50452.77	58435,28	115821.77	9.7028849	9.7666751
19	50477.88	58474,31	115841.47	9.7031011	9.7669651
20	50502,99	58513,35	115861.18	9.7033170	9.7672550
21	50528,09	58552,41	115880.91	9.7035329	9.7675448
22	50553,19	58591,48	115900.65	9.7037486	9.7678344
23	50578,28	58630,56	115920.41	9.7039641	9.7681240
24	50603,37	58669,65	115940.19	9.7041795	9.7684135
25	50628,46	58708,76	115959.99	9.7043947	9.7687029
26	50653,55	58747,88	115979,80	9.7046099	9.7689922
27	50678,63	58787,02	115999.63	9.7048248	9.7692814
28	50703,70	58826,17	116019.47	9.7050397	9.7695705
29	50728,77	58865,33	116039.33	9.7052543	9.7698596
30	50753,84	58904,50	116059.21	9.7054689	9.7701485

59 Grad.

Minut	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
0	86602,54	173205,08	200000,00	9.9375306	10,2385606
9	86587,99	173088,78	199899,29	9.9374577	10,2382689
8	86573.43	172972,60	199798,70	9.9373847	10.2379773
7	86558,87	172856,54	199698,23	9.9373116	10,2376858
6	86544,30	172740,60	199597,88	9.9372385	10,2373944
5	86529,72	172624,77	199497,64	9.9371653	10,2371031
4	86515,14	172209,05	199397,53	9.9370921	10,2368119
3	86500,55	172393,45	199297,52	9.9370189	10,2365208
2	86485,95	172277,97	199197,64	9.9369456	10,2362298
1	86471,34	172162,61	199097,87	9.9368722	10,2359388
0	86456,73	172047,36	198998,22	9.9367988	10,2356480
49	86442,11	171932,22	198898,69	9.9367254	10,2353573
48	86427,48	171817,20	198799,27	9.9366519	10,2350666
47	86412,84	171702,30	198699,97	9.9365783	10,2347761
46	86398,20	171587,51	198600,80	9.9365047	10,2344857
45	86383,55	171472,83	198501,72	9.9364311	10,2341953
44	86368,89	171358,27	198402,76	9.9363574	10,2339051
43	86354,23	171243,82	198303,93	9.9362836	10,2336149
42	86339,56	171129,49	198205,20	9.9362098	10,2333249
41	86324,88	171015,27	198106,59	9.9361360	10,2330349
40	86310,19	170901,16	198008,10	9.9360621	10,2327450
39	86295,49	170787,17	197909,72	9.9359881	10.2324552
38	86280,79	170673,29	197811,46	9.9359141	10,2321656
37	86266,08	170559,53	197713,31	9.9358401	10,2318760
36	86251,36	170445,87	197615,27	9.9357660	10,2315865
35	86236,64	170332,33	197517,35	9.9356918	10,2312971
34	86221,91	170218,90	197419,54	9.9356177	10.2310078
33	86207,17	170105,59	197321,85	9.9355434	10,2307186
32	86192,43	169992,38	197224,26	9.9354691	10,2304295
31	86177,68	169879,29	197126,80	9.9353948	10,2301404
30	86162,92	169766,31	197029,44	9.9353204	10,2298515

30 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*LogTan*
30	50753,84	58904,50	116059.21	9.7054689	9.770148
31	50778,90	58943,69	116079.11	9.7056833	9.770437
32	50803,96	58982,89	116099.02	9.7058975	9.770726
33	50829,01	59022,11	116118.95	9.7061116	9.771014
34	50854,06	59061,34	116138.89	9.7063256	9.771303
35	50879,10	59100,58	116158.85	9.7065394	9.771591
36	50904,14	59139,83	116178.83	9.7067531	9.7718801
37	50929,18	59179,10	116198.82	9.7069667	9.7721684
38	50954,21	59218,39	116218.83	9.7071801	9.772456
39	50979,24	59257,68	116238.86	9.7073933	9.7727447
40	51004,26	59296,99	116258.91	9.7076064	9.7730327
41	51029,28	59336,32	116278.97	9.7078194	9.7733206
42	51054,29	59375,66	116299.05	9.7080323	9.7736084
43	51079,30	59415,01	116319.14	9.7082450	9.7738961
44	51104,31	59454,37	116339.25	9.7084575	9.7741838
45	51129,31	59493,75	116359.38	9.7086699	9.7744713
46	51154,31	59533,14	116379.53	9.7088822	9.7747588
47	51179,30	59572,54	116399.69	9.7090943	9.7750462
48	51204.29	59611,96	116419.87	9.7093063	9.7753334
49	51229,27	59651,40	116440.07	9.7095182	9.7756206
50	51254,25	59690,84	116460.28	9.7097299	9.7759077
51	51279,22	59730,30	116480.51	9.7099415	9.7761947
52	51304,19	59769,78	116500,76	9.7101529	9.7764816
53	51329,16	59809,27	116521.02	9.7103642	9.7767685
54	51354,12	59848.77	116541.30	9.7105753	9.7770552
55	51379,08	59888,28	116561.60	9.7107863	9.7773418
56	51404,04	59927,81	116581.91	9.7109972	9.7776284
57	51428,99	59967.35	116602.24	9.7112080	9.7779149
58	51453,93	60006,91	116522.59	9.7114186	9.7782012
59	51478,87	60046,48	116642,96	9.7116290	9.7784875
60	51503,81	60086.06	116663.34	9.7118393	9.7787737

59 Grad.

	Sinus	Tang.	Secant.	Log.Sin.	Log:Tang.
0	86162,92	169766,31	197029,44	9,9353204	10,2298515
9	86148,15	169653,44	196932,20	9,9352459	10,2295627
8	86133,37	169540,69	196835,07	9,9351715	10,2292739
7	86118,59	169428.04	196738,05	9,9350969	10,2289853
6	86103,80	169315,50	196641.14	9,9350223	10,2286967
5	86089,00	169203,08	196544,34	9,9349477	10,2284083
4	86074,20	169090,77	196447,67	9,9348730	10,2281199
3	86059,39	168978,56	196351,10	9,9347983	10,2278316
2	86044,57	168866,47	196254,64	9.9347235	10,2275434
1	86029,74	168754,49	196158,29	9,9346486	10,2272553
0	86014,91	168642,61	196062,06	9,9345738	10,2269673
9	86000,07	168530,85	195965,93	9,9344988	10,2266794
8	85985,22	168419,19	195869.92	9,9344238	10,2263916
7	85970.37	168307,65	195774,01	9,9343488	10,2261039
6	85955,51	168196,21	195678,22	9,9342737	10,2258162
5	85940,64	168084,89	195582,54	9,9341986	10,2255287
4	85925,76	167973.67	195486,97	9,9341234	10,2252412
3	85910,88	167862,56	195391,50	9,9340482	10,2249538
2	85895,99	167751,56	195296,15	9.9339729	10,2246666
1	85881,09	167640,67	195200,91	9,9338976	10,2243794
0	85866,18	167529,88	195105,77	9,9338222	10,2240923
9	85851,27	167419,21	195010,75	9,9337467	10,2238053
8	85836,35	167308,64	194915,83	9,9336713	10,2235184
7	85821,42	167198,18	194821,02	9,9335957	10,2232315
6	85806.49	167087.82	194726,32	9,9335201	10,2229448
5	85791,55	166977.58	194631.73	9,9334445	10,2226582
4	85776,60	166867,44	194537.25	9,9333688	10,2223716
3	85761,64	166757.41	194442.88	9,9332931	10,2220851
2	85746,68	166647.48	194348.61	9,9332173	10,2217988
1	85731.71	166537.66	194254.45	9,9331415	10,2215125
0	85716,73	166427.95	194160.40	9,9330656	10,2212263

31 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Ta
0	51503,81	60086,06	116663.34	9.7118393	9.778773
1	51528,74	60125,66	116683.74	9.7120495	9.779059
2	51553,67	60165,27	116704.16	9.7122596	9.779345
3	51578,59	60204,90	116724.59	9.7124695	9.779631
4	51603,51	60244,54	116745.04	9.7126792	9.779917
5	51628,42	60284,19	116765.51	9.7128889	9.780203
6	51653,33	60323,86	116785.99	9.7130983	9.780489
7	51678,24	60363,54	116806.49	9.7133077	9.780774
8	51703,14	60403,23	116827.01	9.7135169	9.781060
9	51728,04	60442,94	116847.55	9.7137260	9.781345
10	51752,93	60482,66	116868.10	9.7139349	9.781630
11	51777,82	60522,40	116888.67	9.7141437	9.781916
12	51802,70	60562,15	116909.26	9.7143524	9.782201
13	51827,58	60601,92	116929.86	9.7145609	9.782486
14	51852,46	60641,70	116950.48	9.7147693	9.782771
15	51877,33	60681,49	116971.12	9.7149776	9.783056
16	51902,19	60721,30	116991.78	9.7151857	9.783341
17	51927,05	60761,12	117012.45	9.7153937	9.783625
18	51951,91	60800,95	117033.14	9.7156015	9.783910
19	51976,76	60840,80	117053.85	9.7158092	9.784194
20	52001,61	60880,67	117074.57	9.7160168	9.784479
21	52026,46	60920,54	117095.31	9.7162243	9.784763
22	52051,30	60960,43	117116.07	9.7164316	9.785048
23	52076,13	61000,34	117136.85	9.7166387	9.785332
24	52100,96	61040,26	117157.64	9.7168458	9.785616
25	52125,79	61080,19	117178.45	9.7170526	9.785900
26	52150,61	61120,14	117199.28	9.7172594	9.786184
27	52175,43	61160,11	117220.13	9.7174660	9.786468
28	52200,24	61200,08	117240.99	9.7176725	9.786752
29	52225,05	61240,07	117261.87	9.7178789	9.787035
30	52249,86	61280,08	117282.77	9.7180851	9.787319

58 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
0	85716,73	166427,95	194160,40	9,9330656	10,2212263
9	85701,74	166318,34	194066,46	9,9329897	10,2209401
8	85686,75	166208,84	193972,62	9,9329137	10,2206541
7	85671,75	166099,45	193878,89	9,9328376	10,2203682
6	85656,74	165990,16	193785,27	9,9327616	10,2200823
5	85641,73	165880,97	193691,76	9,9326854	10,2197966
4	85626,71	165771,89	193598,35	9,9326092	10,2195109
3	85611,68	165662,92	193505,05	9,9325330	10,2192253
2	85596,64	165554,05	193411,85	9,9324567	10,2189398
1	85581,60	165445,29	193318,76	9.9323804	10,2186544
0	85566,55	165336,63	193225,78	9,9323040	10,2183691
9	85551,49	165228,08	193132,90	9,9322276	10,2180838
8	85536.42	165119,63	193040,13	9,9321511	10,2177987
7	85521,35	165011,28	192947.46	9,9320746	10,2175136
6	85506,27	164903,04	192854,90	9,9319980	10,2172287
5	85491,18	164794.90	192762,44	9,9319213	10,2169438
4	85476,09	164686,86	192670,09	9,9318447	10,2166590
3	85460,99	164578,93	192577,84	9,9317679	10,2163742
2	85445.88	164471,11	192485,70	9,9316911	10,2160896
1	85430,76	164363,38	192393,66	9,9316143	10,2158051
0	85415,64	164255,76	192301,73	9,9315374	10,2155206
9	85400,51	164148.24	192209,90	9,9314605	10,2152362
8	85385,37	164040,82	192118,17	9,9313835	10,2149519
7	85370,23	163933.51	192026,55	9,9313065	10,2146677
6	85355,08	163826,30	191935,03	9,9312294	10,2143836
5	85339,92	163719,19	191843,62	9,9311522	10,2140996
4	85324,75	163612,18	191752.30	9,9310750	10,2138156
3	85309,58	163505,28	191661,09	9,9309978	10,2135318
2	85294,40	163398,47	191569,99	9,9309205	10,2132480
1	85279,21	163291,77	191478,99	9,9308432	10,2129643
0	85264,02	163185,17	191388,09	9,9307658	10,2126807

31 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tan
30	52249,86	61280,08	117282.77	9,7180851	9.7873193
31	52274,66	61320,10	117303.69	9,7182912	9.7876028
32	52299,45	61360,13	117324.62	9.7184971	9.7878863
33	52324,24	61400,18	117345.57	9,7187030	9.7881696
34	52349,03	61440,24	117366.54	9,7189086	9.7884529
35	52373,81	61480,32	117387.52	9,7191142	9.7887361
36	52398,59	61520,41	117408.52	9,7193196	9.7890192
37	52423,36	61560,52	117429.54	9,7195249	9.7893023
38	52448,13	61600,64	117450.58	9,7197300	9.7895852
39	52472,90	61640,77	117471.64	9,7199350	9.7898681
40	52497,66	61680,92	117492.71	9,7201399	9.7901508
41	52522,41	61721,08	117513.80	9,7203447	9.7904335
42	52547,16	61761,26	117534.91	9,7205493	9.7907161
43	52571,91	61801,45	117556.03	9,7207538	9.7909987
44	52596,55	61841,66	117577.17	9,7209581	9.7912811
45	52621,39	61881,88	117598.33	9,7211623	9.7915635
46	52646,12	61922,11	117619.51	9,7213664	9.7918458
47	52670,85	61962,36	117640.70	9,7215704	9.7921280
48	52695,58	62002,63	117661.91	9.7217742	9.7924101
49	52720,30	62042,91	117683.14	9,7219779	9.7926921
50	52745,02	62083,20	117704.39	9,7221814	9.7929741
51	52769,73	62123,51	117725.66	9,7223848	9.7932560
52	52794,44	62163,83	117746.94	9,7225881	9.7935378
53	52819,14	62204,17	117768.24	9,7227913	9.7938195
54	52843,84	62244,52	117789.56	9,7229943	9.7941011
55	52868,53	62284,88	117810,90	9,7231972	9.7943827
56	52893,22	62325,26	117832,25	9,7234000	9.7946641
57	52917,90	62365,66	117853,62	9,7236026	9.7949455
58	52942,58	62406,07	117875.01	9,7238051	9.7952268
59	52967,26	62446,50	117896.42	9,7240075	9.7955081
60	52991,93	62486,94	117917.84	9,7242097	9.7957892

58 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
30	85264,02	163185,17	191388,09	9,9307658	10,2126807
29	85248.81	163078,67	191297,29	9,9306883	10,2123972
28	85233,60	162972,27	191206,59	9,9306109	10,2121137
27	85218,38	162865.97	191116,00	9,9305333	10,2118304
26	85203,16	162759,77	191025,51	9,9304557	10,2115471
25	85187,93	162653.68	190935,12	9,9303781	10,2112639
24	85172,69	162547,68	190844,83	9,9303004	10,2109808
23	85157,44	162441,78	190754,64	9,9302226	10,2106977
22	85142,19	162335,99	190664,56	9,9301448	10,2104148
21	85126,93	162230,29	190574,57	9,9300670	10,2101319
20	85111,66	162124,69	190484,69	9,9299891	10,2098492
19	85096,39	162019,20	190394,91	9,9299112	10,2095665
18	85081,11	161913,80	190305,22	9,9298332	10,2092839
17	85065,82	161808,50	190215,64	9,9297551	10,2090013
16	85050,52	161703,30	190126,16	9,9296770	10,2087189
15	85035,22	161598,20	190036,78	9,9295989	10,2084365
14	85019,91	161493,20	189947,50	9,9295207	10,2081542
13	85004,59	161388,29	189858,32	9,9294424	10,2078720
12	84989,27	161283,49	189769.24	9,9293641	10,2075899
11	84973,94	161178,78	189680,26	9,9292857	10,2073079
10	84958,60	161074,17	189591,38	9.9292073	10,2070259
9	84943,25	160969,66	189502,59	9,9291289	10,2067440
8	84927,90	160865,25	189413,91	9,9290504	10,2064622
7	84912,54	160760,94	189325,32	9,9289718	10,2061805
6	84897,17	160656,72	189236,84	9,9288932	10,2058989
5	84881,79	160552,60	189148.45	9,9288145	10,2056173
4	84866,41	160448,58	189060,16	9,9287358	10,2053359
3	84851,02	160344,65	188971,97	9,9286571	10,2050545
2	84835.62	160240,82	188883,88	9,9285783	10,2047732
1	84820,22	160137,09	188795,89	9,9284994	10,2044919
0	84804,81	160033,45	188707,99	9,9284205	10,2042108

32 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
0	52991,93	62486,94	117917.84	9,7242097	9.7957892
1	53016,59	62527,39	117939.28	9.7244118	9.7960703
2	53041,25	62567,86	117960.74	9,7246138	9.7963513
3	53065.91	62608.34	117982.22	9,7248156	9.7966322
4	53090,56	62648,84	118003.72	9,7250174	9.7969130
5	53115,21	62689,35	118025.23	9,7252189	9.7971938
6	53139,86	62729,88	118046.76	9,7254204	9,7974745
7	53164,50	62770,42	118068.31	9,7256217	9.7977551
8	53189,13	62810,98	118089.88	9,7258229	9.7980356
9	53213.76	62851,56	118111.47	9,7260240	9.7983160
10	53238,39	62892,15	118133.07	9,7262249	9.7985964
11	53263,01	62932,75	118154.69	9,7264257	9.7988767
12	53287.63	62973,36	118176.33	9.7266264	9.7991569
13	53312,24	63013,99	118197.99	9,7268269	9.7994370
14	53336.85	63054,64	118219.66	9,7270273	9.7997170
15	53361,45	63095,30	118241.35	9,7272276	9.7999970
16	53386,05	63135,98	118263.06	9,7274278	9.8002769
17	53410,64	63176,67	118284.79	9,7276278	9.8005567
18	53435.23	63217.38	118306.54	9,7278277	9.8008365
19	53459,82	63258,10	118328.30	9,7280275	9.8011161
20	53484,40	63298,83	118350.08	9,7282271	9.8013957
21	53508,98	63339.58	118371.88	9.7284267	9.8016752
22	53533.55	63380,35	118393.70	9,7286260	9.8019546
23	53558,12	63421,13	118415.54	9,7288253	9.8022340
24	53582,68	63461,93	118437.40	9,7290244	9.8025133
25	53607,24	63502,74	118459.27	9,7292234	9.8027925
26	53631.79	63543.57	118481.16	9,7294223	9.8030716
27	53656.34	63584.41	118503.07	9,7296211	9.8033506
28	53680,88	63625,27	118525.00	9,7298197	9.8036296
29	53705,42	63666.14	118546.94	9.7300182	9.8039085
30	53729,96	63707,03	118568.91	9,7302165	9.8041873

57 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tang*
60	84804,81	160033,45	188707,99	9,9284205	10,2042108
59	84789,39	159929,91	188620,19	9,9283415	10,2039297
58	84773,96	159826,47	188532,49	9,9282625	10,2036487
57	84758,53	159723,12	188444,89	9,9281834	10,2033678
56	84743,09	159619,87	188357,38	9,9281043	10,2030870
55	84727,64	159516,72	188269,97	9,9280251	10,2028062
54	84712,19	159413,66	188182.66	9,9279459	10,2025255
53	84696,73	159310,70	188095,45	9,9278666	10,2022449
52	84681,26	159207,83	188008,33	9,9277873	10,2019644
51	84665.78	159105,05	187921,31	9.9277079	10,2016840
50	84650,30	159002,38	187834,38	9,9276285	10,2014036
49	84634,81	158899,79	187747,55	9,9275490	10,2011233
48	84619,31	158797,30	187660,82	9,9274695	10,2008431
47	84603,81	158694,91	187574,18	9,9273899	10,2005630
46	84588,30	158592,61	187487,64	9,9273103	10,2002830
45	84572,78	158490,41	187401,20	9,9272306	10,2000030
44	84557,25	158388,30	187314,85	9,9271509	10,1997231
43	84541,72	158286,28	187228,59	9,9270711	10,1994433
42	84526,18	158184.36	187142,43	9,9269913	10,1991635
41	84510,63	158082,53	187056,37	9,9269114	10,1988839
40	84495,08	157980,79	186970,40	9,9268314	10,1986043
39	84479,52	157879,15	186884.53	9,9267514	10,1983248
38	84463,95	157777,60	186798,75	9,9266714	10,1980454
37	84448,37	157676,15	186713,06	9,9265913	10,1977660
36	84432,79	157574,79	186627,47	9,9265112	10,1974867
35	84417,20	157473.52	186541,97	9,9264310	10,1972075
34	84401,60	157372,34	186456,57	9,9263507	10,1969284
33	84386.00	157271,26	186371,26	9,9262704	10,1966494
32	84370,39	157170.26	186286,05	9,9261901	10,1963704
31	84354,77	157069,36	186200,93	9,9261096	10,1960915
30	84339,14	156968,56	186115,90	9,9260292	10,1958127

32 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
30	53729,96	63707,03	118568.91	9.7302165	9.8041873
31	53754,49	63747,93	118590.89	9.7304148	9.8044661
32	53779,02	63788,85	118612.89	9.7306129	9.8047447
33	53803,54	63829,78	118634.91	9.7308109	9.8050233
34	53828,06	63870,73	118656.95	9.7310087	9.8053019
35	53852,57	63911,69	118679.00	9.7312064	9.8055803
36	53877,08	63952,67	118701.07	9.7314040	9.8058587
37	53901,58	63993,66	118723.16	9.7316015	9.8061370
38	53926,08	64034,67	118745.27	9.7317989	9.8064152
39	53950,58	64075,69	118767.40	9.7319961	9.8066933
40	53975,07	64116,73	118789.55	9.7321932	9.8069714
41	53999,55	64157,79	118811.71	9.7323902	9.8072494
42	54024,03	64198,86	118833.89	9.7325870	9.8075273
43	54048,51	64239,95	118856.09	9.7327837	9.8078052
44	54072,98	64281,05	118878.31	9.7329803	9.8080829
45	54097,45	64322,16	118900.55	9.7331768	9.8083606
46	54121,91	64363,29	118922.81	9.7333731	9.8086383
47	54146,37	64404,44	118945.08	9.7335693	9.8089158
48	54170,82	64445,60	118967.37	9.7337654	9.8091933
49	54195,27	64486,78	118989.68	9.7339614	9.8094707
50	54219,71	64527,97	119012.01	9.7341572	9.8097480
51	54244,15	64569,18	119034.36	9.7343529	9.8100253
52	54268,59	64610,41	119056.73	9.7345485	9.8103025
53	54293,02	64651,65	119079.12	9.7347440	9.8105796
54	54317,44	64692,90	119101.52	9.7349393	9.8108566
55	54341,86	64734,17	119123.94	9.7351345	9.8111336
56	54366,28	64775,46	119146.38	9.7353296	9.8114105
57	54390,69	64816,76	119168.84	9.7355246	9.8116873
58	54415,10	64858,08	119191.32	9.7357195	9.8119641
59	54439,50	64899,41	119213.82	9.7359142	9.8122408
60	54463,90	64940,76	119236,33	9.7361088	9.8125174

57 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
30	84339,14	156968,56	186115,90	9.9260292	10,1958127
29	84323,51	156867,84	186030,96	9.9259487	10,1955339
28	84307,87	156767,22	185946,12	9.9258681	10,1952553
27	84292,22	156666,69	185861,38	9.9257875	10,1949767
26	84276,57	156566,25	185776,72	9.9257069	10,1946981
25	84260,91	156465,90	185692,16	9.9256261	10,1944197
24	84245,24	156365,64	185607,69	9.9255454	10,1941413
23	84229,56	156265,48	185523,31	9.9254646	10,1938630
22	84213,88	156165,40	185439,03	9.9253837	10,1935848
21	84198,19	156065,42	185354,83	9.9253028	10,1933067
20	84182,49	155965,52	185270,73	9.9252218	10,1930286
19	84166,79	155865,72	185186,72	9.9251408	10,1927506
18	84151,08	155766,01	185102,81	9.9250597	10,1924727
17	84135,36	155666,39	185018,98	9.9249786	10,1921948
16	84119,63	155566,85	184935,25	9.9248974	10,1919171
15	84103,90	155467,41	184851,61	9.9248161	10,1916394
14	84088,16	155368,06	184768,05	9.9247349	10,1913617
13	84072,41	155268,80	184684,59	9.9246535	10,1910842
12	84056,66	155169,63	184601,23	9.9245721	10,1908067
11	84040,90	155070,54	184517,95	9.9244907	10,1905293
10	84025,13	154971,55	184434,76	9.9244092	10,1902520
9	84009,35	154872,64	184351,66	9.9243277	10,1899747
8	83993,57	154773,83	184268,66	9.9242461	10,1896975
7	83977,78	154675,10	184185,74	9.9241644	10,1894204
6	83961,98	154576,46	184102,92	9.9240827	10,1891434
5	83946,18	154477,92	184020,18	9.9240010	10,1888664
4	83930,37	154379,46	183937,53	9.9239191	10,1885895
3	83914,55	154281,08	183854,98	9.9238373	10,1883127
2	83898,73	154182,80	183772,51	9.9237554	10,1880359
1	83882,90	154084,60	183690,13	9.9236734	10,1877592
0	83867,06	153986,50	183607,84	9.9235914	10,1874826

33 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
0	54463,90	64940,76	119236,33	9.7361088	9.8125174
1	54488,30	64982,12	119258.86	9.7363032	9.8127939
2	54512,69	65023,50	119281.41	9.7364976	9.8130704
3	54537,07	65064,90	119303.98	9.7366918	9.8133468
4	54561,45	65106,31	119326.57	9.7368859	9.8136231
5	54585,83	65147,74	119349.18	9.7370799	9.8138993
6	54610,20	65189,18	119371.81	9.7372737	9.8141755
7	54634,56	65230,64	119394.46	9.7374675	9.8144516
8	54658,92	65272,11	119417.12	9.7376611	9.8147277
9	54683,28	65313,60	119439.80	9.7378546	9.8150036
10	54707,63	65355,11	119462.50	9.7380479	9.8152795
11	54731,98	65396,63	119485,22	9.7382412	9.8155554
12	54756,32	65438,17	119507.96	9.7384343	9.8158311
13	54780,66	65479,72	119530.72	9.7386273	9.8161068
14	54804,99	65521,29	119553.50	9.7388201	9.8163824
15	54829,32	65562,87	119576.30	9.7390129	9.8166580
16	54853,65	65604,47	119599.11	9.7392055	9.8169335
17	54877,97	65646,09	119621.94	9.7393980	9.8172089
18	54902,28	65687,72	119644.79	9.7395904	9.8174842
19	54926,59	65729,37	119667.66	9.7397827	9.8177595
20	54950,90	65771,03	119690.55	9.7399748	9.8180347
21	54975,20	65812,71	119713.46	9.7401668	9.8183098
22	54999,50	65854,41	119736.39	9.7403587	9.8185849
23	55023,79	65896,12	119759.34	9.7405505	9.8188599
24	55048,08	65937,85	119782.31	9.7407421	9.8191348
25	55072,36	65979,59	119805.29	9.7409337	9.8194096
26	55096,64	66021,35	119828,29	9.7411251	9.8196844
27	55120,91	66063,13	119851.31	9.7413164	9.8199592
28	55145,18	66104,92	119874.35	9.7415075	9.8202338
29	55169,44	66146,73	119897.41	9.7416986	9.8205084
30	55193,70	66188,56	119920.49	9.7418895	9.8207829

56 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
60	83867,06	153986,50	183607,84	9.9235914	10,1874826
59	83851,21	153888,48	183525,64	9.9235093	10,1872061
58	83835,36	153790,55	183443,53	9.9234272	10,1869296
57	83819,50	153692,70	183361,51	9.9233450	10,1866532
56	83803,63	153594,94	183279,58	9.9232628	10,1863769
55	83787,75	153497,27	183197,74	9.9231805	10,1861007
54	83771,87	153399,69	183115,99	9.9230982	10,1858245
53	83755,98	153302,20	183034,32	9.9230158	10,1855484
52	83740,08	153204,79	182952,74	9.9229334	10,1852723
51	83724,18	153107,47	182871,25	9.9228509	10,1849964
50	83708,27	153010,23	182789,85	9.9227684	10,1847205
49	83692,35	152913,08	182708,54	9.9226858	10,1844446
48	83676,43	152816,02	182627,31	9.9226032	10,1841689
47	83660,50	152719,04	182546,17	9.9225205	10,1838932
46	83644,56	152622,15	182465,12	9.9224377	10,1836176
45	83628,61	152525,35	182384,16	9.9223549	10,1833420
44	83612,66	152428,63	182303,28	9.9222721	10,1830665
43	83596,70	152332,00	182222,49	9.9221891	10,1827911
42	83580,73	152235,45	182141,79	9.9221062	10,1825158
41	83564,76	152138,99	182061,18	9.9220232	10,1822405
40	83548,78	152042,61	181980,65	9.9219401	10,1819653
39	83532,79	151946,32	181900,21	9.9218570	10,1816902
38	83516,80	151850,12	181819,85	9.9217738	10,1814151
37	83500,80	151754,00	181739,58	9.9216906	10,1811401
36	83484,79	151657,96	181659,40	9.9216073	10,1808652
35	83468,77	151562,01	181579,30	9.9215240	10,1805904
34	83452,75	151466,14	181499,29	9.9214406	10,1803156
33	83436,72	151370,36	181419,37	9.9213572	10,1800408
32	83420,68	151274,66	181339,53	9.9212737	10,1797662
31	83404,63	151179,05	181259,77	9.9211902	10,1794916
30	83388,58	151083,52	181180,10	9.9211066	10,1792171

33 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
30	55193,70	66188,56	119920.49	9.7418895	9.8207829
31	55217,95	66230,40	119943.59	9.7420803	9.8210574
32	55242,20	66272,26	119966.71	9.7422710	9.8213317
33	55266,45	66314.13	119989.85	9.7424616	9.8216060
34	55290,69	66356,02	120013.01	9.7426520	9.8218803
35	55314.92	66397.92	120036,19	9.7428423	9.8221545
36	55339.15	66439,84	120059.38	9.7430325	9.8224286
37	55363,38	66481,78	120082,59	9.7432226	9.8227026
38	55387,60	66523,73	120105.82	9.7434126	9.8229766
39	55411,82	66565,70	120129,07	9.7436024	9.8232505
40	55436,03	66607,69	120152.34	9.7437921	9.8235244
41	55460,24	66649,69	120175.63	9.7439817	9.8237981
42	55484,44	66691,71	120198.94	9.7441712	9.8240719
43	55508,64	66733.75	120222,27	9.7443606	9.8243455
44	55532,83	66775,80	120245.62	9.7445498	9.8246191
45	55557,02	66817.87	120268.99	9.7447390	9.8248926
46	55581,21	66859,95	120292.37	9.7449280	9.8251660
47	55605,39	66902,05	120315.77	9.7451169	9.8254394
48	55629.56	66944.17	120339.19	9.7453056	9.8257127
49	55653,73	66986,30	120362,64	9.7454943	9.8259860
50	55677,90	67028,45	120386.10	9.7456828	9.8262592
51	55702,06	67070,62	120409.58	9.7458712	9.8265323
52	55726,21	67112,80	120433.08	9.7460595	9.8268053
53	55750,36	67155,00	120456.60	9.7462477	9.8270783
54	55774.51	67197,21	120480.14	9.7464358	9.8273513
55	55798.65	67239,44	120503.70	9.7466237	9.8276241
56	55822,79	67281,69	120527.28	9.7468115	9.8278969
57	55846.92	67323,96	120550.88	9.7469992	9.8281696
58	55871,05	67366,24	120574.50	9.7471868	9.8284423
59	55895.17	67408,54	120598.14	9.7473743	9.8287149
60	55919.29	67450,85	120621,80	9.7475617	9.8289874

56 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Tang. Log*
30	83388,58	151083,52	181180,10	9,9211066	10,1792171
29	83372,52	150988,07	181100,52	9,9210229	10,1789426
28	83356,45	150892,71	181021,02	9,9209393	10,1786683
27	83340,38	150797,43	180941,61	9,9208555	10,1783940
26	83324,30	150702,24	180862,28	9,9207717	10,1781197
25	83308,21	150607,13	180783,04	9,9206878	10,1778455
24	83292,12	150512,10	180703,88	9,9206039	10,1775714
23	83276,02	150417,16	180624,81	9,9205200	10,1772974
22	83259,91	150322,30	180545,82	9,9204360	10,1770234
21	83243,80	150227,52	180466,91	9,9203519	10,1767495
20	83227,68	150132,82	180388,09	9,9202678	10,1764756
19	83211,55	150038,20	180309,35	9,9201836	10,1762019
18	83195,41	149943,67	180230,70	9,9200994	10,1759281
17	83179,27	149849,22	180152,13	9,9200151	10,1756545
16	83163,12	149754,86	180073,65	9,9199308	10,1753809
15	83146,96	149660,58	179995,25	9,9198464	10,1751074
14	83130,79	149566,38	179916,93	9,9197619	10,1748340
13	83114,62	149472,26	179838,69	9,9196775	10,1745606
12	83098,44	149378,22	179760,54	9,9195929	10,1742873
11	83082,26	149284,26	179682,47	9,9195083	10,1740140
10	83066,07	149190,38	179604,48	9,9194237	10,1737408
9	83049,87	149096,59	179526,58	9,9193390	10,1734677
8	83033,66	149002,88	179448,76	9,9192542	10,1731947
7	83017,45	148909,25	179371,02	9,9191694	10,1729217
6	83001,23	148815,70	179293,37	9,9190845	10,1726487
5	82985,00	148722,23	179215,80	9,9189996	10,1723759
4	82968,76	148628,84	179138,31	9,9189146	10,1721031
3	82952,52	148535,53	179060,90	9,9188296	10,1718304
2	82936,27	148442,30	178983,58	9,9187445	10,1715577
1	82920,02	148349,16	178906,33	9,9186594	10,1712851
0	82903,76	148256,10	178829,16	9,9185742	10,1710126

34 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
0	55919.29	67450.85	120621,80	9.7475617	9.8289874
1	55943.40	67493.18	120645.48	9.7477489	9.8292599
2	55967.51	67535.53	120669.18	9.7479360	9.8295323
3	55991,61	67577.90	120692,89	9.7481230	9,8298047
4	56015.71	67620,28	120716.62	9.7483099	9,8300769
5	56039,81	67662,68	120740.37	9.7484967	9,8303492
6	56063.90	67705.09	120764.14	9.7486833	9,8306213
7	56087.98	67747.52	120787.93	9.7488698	9,8308934
8	56112,06	67789.97	120811.75	9.7490562	9,8311654
9	56136.14	67832.44	120835.59	9.7492425	9,8314374
10	56160,21	67874.92	120859.44	9.7494287	9,8317093
11	56184.28	67917.42	120883.31	9.7496148	9,8319811
12	56208,34	67959.93	120907.20	9.7498007	9,8322529
13	56232,39	68002,46	120931.12	9.7499866	9,8325246
14	56256.44	68045.01	120955.05	9.7501723	9,8327963
15	56280.49	68087.58	120979.00	9.7503579	9,8330679
16	56304.53	68130.16	121002,97	9.7505434	9,8333394
17	56328,57	68172,76	121026,96	9.7507287	9,8336109
18	56352,60	68215.38	121050,97	9.7509140	9,8338823
19	56376,63	68258,01	121075.00	9.7510991	9,8341536
20	56400,65	68300,66	121099,05	9.7512842	9,8344249
21	56424,67	68343.33	121123.12	9.7514691	9,8346961
22	56448,69	68386,01	121147,21	9.7516538	9,8349673
23	56472,70	68428,71	121171,32	9.7518385	9,8352384
24	56496,70	68471.43	121195.45	9.7520231	9,8355094
25	56520,70	68514.17	121219,60	9.7522075	9,8357804
26	56544.69	68556,92	121243,77	9.7523919	9,8360513
27	56568,68	68599.69	121267,96	9.7525761	9,8363221
28	56592,67	68642.47	121292,17	9.7527602	9,8365929
29	56616,65	68685.27	121316,40	9.7529442	9,8368636
30	56640,62	68728,10	121340,64	9.7531280	9,8371343

55 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
60	82903,76	148256,10	178829,16	9.9185742	10,1710126
59	82887,49	148163,11	178752,08	9.9184890	10,1707401
58	82871,21	148070,21	178675.08	9.9184037	10,1704677
57	82854.93	147977.38	178598.17	9.9183183	10,1701953
56	82838.64	147884.63	178521,33	9.9182329	10,1699231
55	82822,34	147791.97	178444.57	9.9181475	10,1696508
54	82806,03	147699.38	178367,90	9.9180620	10,1693787
53	82789,72	147606,88	178291,31	9.9179764	10,1691066
52	82773,40	147514,45	178214,79	9.9178908	10,1688346
51	82757,07	147422,10	178138,36	9.9178051	10,1685626
50	82740,74	147329,83	178062,01	9.9177194	10,1682907
49	82724,40	147237,64	177985,74	9.9176336	10,1680189
48	82708,05	147145.53	177909.55	9.9175478	10,1677471
47	82691,70	147053,50	177833,43	9.9174619	10,1674754
46	82675,34	146961,55	177757,40	9.9173760	10,1672037
45	82658,97	146869,67	177681,45	9.9172900	10,1669321
44	82642,60	146777,87	177605,58	9.9172040	10,1666606
43	82626,22	146686,16	177529,79	9.9171179	10,1663891
42	82609,83	146594,52	177454,08	9.9170317	10,1661177
41	82593,43	146502,96	177378,45	9.9169455	10,1658464
40	82577,03	146411,47	177302,90	9.9168593	10,1655751
39	82560,62	146320,07	177227,43	9.9167730	10,1653039
38	82544,20	146228,74	177152,04	9.9166866	10,1650327
37	82527,78	146137,49	177076,73	9.9166002	10,1647616
36	82511,35	146046,32	177001,49	9.9165137	10,1644906
35	82494,91	145955,22	176926,33	9.9164272	10,1642196
34	82478,47	145864,20	176851,25	9.9163406	10,1639487
33	82462,02	145773,26	176776,25	9.9162539	10,1636779
32	82445,56	145682,40	176701,33	9.9161673	10,1634071
31	82429,09	145591,61	176626,49	9.9160805	10,1631364
30	82412,62	145500,90	176551,73	9.9159937	10,1628657

34 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
30	56640,62	68728,10	121340,64	9.7531280	9,8371343
31	56664,59	68770,94	121364,91	9.7533118	9,8374049
32	56688,56	68813,79	121389,20	9.7534954	9,8376755
33	56712,52	68856,66	121413,51	9.7536790	9,8379460
34	56736,48	68899,55	121437,83	9.7538624	9,8382164
35	56760,43	68942,46	121462,18	9.7540457	9,8384867
36	56784,37	68985,38	121486,55	9.7542288	9,8387571
37	56808,31	69028,32	121510.94	9.7544119	9,8390273
38	56832,25	69071,28	121535,35	9.7545949	9,8392975
39	56856,18	69114,25	121559,78	9.7547777	9,8395676
40	56880,11	69157,24	121584,23	9.7549604	9,8398377
41	56904,03	69200,25	121608.70	9.7551431	9,8401077
42	56927,95	69243,28	121633,19	9.7553256	9,8403776
43	56951,86	69286,33	121657,70	9.7555080	9,8406475
44	56975,77	69329,39	121682,23	9.7556902	9,8409174
45	56999,68	69372,47	121706,78	9.7558724	9,8411871
46	57023,58	69415,57	121731,35	9.7560544	9,8414569
47	57047,47	69458,68	121755,94	9.7562364	9,8417265
48	57071,36	69501,81	121780,55	9.7564182	9,8419961
49	57095,24	69544,96	121805,18	9.7565999	9,8422657
50	57119,12	69588,13	121829.83	9.7567815	9,8425351
51	57142,99	69631,31	121854.50	9.7569630	9,8428046
52	57166,86	69674,51	121879,19	9.7571444	9,8430739
53	57190,73	69717,73	121903,90	9.7573256	9,8433432
54	57214.59	69760,97	121928,64	9.7575068	9,8436125
55	57238,44	69804,22	121953,39	9.7576878	9,8438817
56	57262,29	69847,49	121978,16	9.7578687	9,8441508
57	57286,14	69890,78	122002,96	9.7580495	9,8444199
58	57309,98	69934,09	122027,77	9.7582302	9,8446889
59	57333.81	69977,41	122052,60	9.7584108	9,8449579
60	57357,64	70020,75	122077,46	9.7585913	9.8452268

55 Grad.

	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
0	82412,62	145500,90	176551,73	9.9159937	10,1628657
9	82396,14	145410,27	176477,04	9.9159069	10,1625951
8	82379,65	145319,71	176402,43	9.9158200	10.1623245
7	82363,16	145229,23	176327,91	9.9157330	10,1620540
6	82346,66	145138,83	176253,45	9.9156460	10,1617836
5	82330,15	145048,50	176179,08	9.9155589	10,1615133
4	82313,64	144958,25	176104,78	9.9154718	10,1612429
3	82297,12	144868,08	176030,56	9.9153846	10.1609727
2	82280,59	144777,98	175956,42	9.9152974	10,1607025
1	82264,05	144687,96	175882,36	9.9152101	10,1604324
0	82247,51	144598,01	175808,37	9.9151228	10,1601623
9	82230,96	144508,14	175734,46	9.9150354	10,1598923
8	82214,40	144418,34	175660,63	9.9149479	10,1596224
7	82197,84	144328,62	175586,87	9.9148604	10,1593525
6	82181,27	144238,97	175513,19	9.9147729	10,1590826
5	82164,69	144149,40	175439,59	9.9146852	10,1588129
4	82148.11	144059,91	175366,07	9.9145976	10,1585431
3	82131,52	143970,49	175292,62	9.9145099	10,1582735
2	82114,92	143881,14	175219,24	9.9144221	10,1580039
1	82098,31	143791,87	175145,94	9.9143342	10,1577343
0	82081,70	143702,68	175072,73	9.9142464	10,1574649
9	82065,08	143613,56	174999,58	9.9141584	10,1571954
8	82048,46	143524,51	174926,51	9.9140704	10,1569261
7	82031,83	143435,54	174853,52	9.9139824	10,1566568
6	82015,19	143346,64	174780,60	9.9138943	10,1563875
5	81998,54	143257.81	174707,76	9.9138061	10,1561183
4	81981,89	143169,06	174634,99	9.9137179	10,1558492
3	81965,23	143080,39	174562,30	9.9136296	10.1555801
2	81948,56	142991,78	174489,69	9.9135413	10,1553111
1	81931,89	142903,26	174417,15	9.9134530	10,1550421
0	81915,21	142814,80	174344,68	9.9133645	10,1547732

35 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	LogTang
0	57357.64	70020,75	122077.46	9.7585913	9.8452268
1	57381,47	70064,11	122102.33	9.7587717	9.8454956
2	57405,29	70107,49	122127.23	9.7589519	9.8457644
3	57429,11	70150.89	122152.15	9.7591321	9.8460332
4	57452,92	70194.30	122177.08	9.7593121	9.8463018
5	57476.72	70237,73	122202.04	9.7594920	9.8465705
6	57500,52	70281,18	122227.02	9.7596718	9.8468390
7	57524,32	70324,65	122252,02	9.7598515	9.8471075
8	57548,11	70368,13	122277.03	9.7600311	9.8473760
9	57571.90	70411,63	122302.07	9.7602106	9.8476444
10	57595,68	70455.15	122327.13	9.7603899	9.8479127
11	57619,46	70498.69	122352.21	9.7605692	9.8481810
12	57643.23	70542,24	122377.32	9.7607483	9.8484492
13	57667,00	70585,81	122402.44	9.7609274	9.8487174
14	57690,76	70629,40	122427.58	9.7611063	9.8489855
15.	57714.52	70673,01	122452.74	9.7612851	9.8492536
16	57738,27	70716,64	122477.93	9.7614638	9.8495216
17	57762,02	70760,29	122503.13	9.7616424	9.8497896
18	57785,76	70803,95	122528.36	9.7618208	9.8500575
19	57809,50	70847,63	122553.61	9.7619992	9.8503253
20	57833,23	70891.33	122578.87	9.7621775	9.8505931
21	57856,96	70935,05	122604.16	9.7623556	9.8508608
22	57880,68	70978,78	122629.47	9.7625337	9.8511285
23	57904,40	71022,53	122654.80	9.7627116	9.8513961
24	57928,12	71066,30	122680.15	9.7628894	9.8516637
25	57951,83	71110,09	122705.52	9.7630671	9.8519312
26	57975,53	71153,90	122730.91	9.7632447	9.852198
27	57999.23	71197,73	122756.33	9.7634222	9.852466
28	58022,92	71241.57	122781.76	9.7635996	9.852733
29	58046,61	71285,43	122807.21	9.7637769	9.853000
30	58070,30	71329,31	122832,69	9.7639540	9.853268

54 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
60	81915,21	142814,80	174344,68	9.9133645	10,1547732
59	81898,52	142726,42	174272,29	9.9132760	10,1545044
58	81881,82	142638,11	174199,97	9.9131875	10.1542356
57	81865,12	142549,87	174127,73	9.9130989	10,1539668
56	81848,41	142461,71	174055,56	9.9130102	10,1536982
55	81831,69	142373,62	173983,47	9.9129215	10,1534295
54	81814,97	142285,61	173911,45	9.9128328	10,1531610
53	81798,24	142197,66	173839,51	9.9127440	10,1528925
52	81781,50	142109,79	173767,64	9.9126551	10,1526240
51	81764,76	142022,00	173695,85	9.9125662	10,1523556
50	81748,01	141934.27	173624,13	9.9124772	10,1520873
49	81731,25	141846,62	173552,47	9.9123882	10,1518190
48	81714,49	141759.04	173480,90	9.9122991	10,1515508
47	81697,72	141671,53	173409,41	9.9122099	10,1512826
46	81680,94	141584,09	173337,98	9.9121207	10,1510145
45	81664,15	141496,73	173266,63	9.9120315	10,1507464
44	81647,36	141409,43	173195,35	9.9119422	10,1504784
43	81630,56	141322,21	173124,14	9.9118528	10,1502104
42	81613,76	141235,06	173053,01	9.9117634	10,1499425
41	81596,95	141147,99	172981,95	9.9116739	10,1496747
40	81580,13	141060,98	172910,96	9.9115844	10,1494069
39	81563,30	140974,05	172840,05	9.9114948	10.1491392
38	81546,47	140887,18	172769,21	9.9114051	10,1488715
37	81529,63	140800,39	172698,44	9.9113155	10,1486039
36	81512,78	140713,67	172627,74	9.9112257	10,1483363
35	81495.93	140627,02	172557,12	9.9111359	10,1480688
34	81479.06	140540,44	172486,57	9.9110460	10.1478013
33	81462,19	140453,93	172416,09	9.9109561	10,1475339
32	81445,32	140367,49	172345,68	9.9108661	10,1472665
31	81428,44	140281.13	172275,34	9.9107761	10,1469992
30	81411,55	140194,83	172205.08	9.9106860	10,1467320

35 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	LogTang
30	58070,30	71329,31	122832,69	9,7639540	9.8532680
31	58093,98	71373,21	122858,19	9,7641311	9.8535352
32	58117,65	71417,13	122883.71	9,7643080	9.8538023
33	58141,32	71461,06	122909.25	9,7644849	9.8540694
34	58164,98	71505,01	122934.81	9,7646616	9.8543365
35	58188,64	71548,98	122960,39	9,7648382	9.8546034
36	58212,30	71592,97	122985.99	9,7650147	9.8548704
37	58235,95	71636,98	123011.61	9,7651911	9.8551372
38	58259,59	71681,01	123037,25	9,7653674	9.8554041
39	58283,23	71725,05	123062.92	9,7655436	9.8556708
40	58306,87	71769,11	123088.61	9,7657197	9.8559376
41	58330,50	71813,19	123114.32	9,7658957	9.8562042
42	58354,12	71857,29	123140.05	9,7660715	9.8564708
43	58377,74	71901,41	123165.80	9,7662473	9.8567374
44	58401,36	71945,55	123191,57	9,7664229	9.8570039
45	58424,97	71989,70	123217.36	9,7665985	9.8572704
46	58448,57	72033,87	123243,17	9,7667739	9.8575368
47	58472,17	72078,06	123269.00	9,7669492	9.8578031
48	58495,77	72122,27	123294.86	9,7671244	9.8580694
49	58519,36	72166,50	123320,74	9,7672996	9.8583357
50	58542,94	72210,75	123346.64	9,7674746	9.8586019
51	58566,52	72255,02	123372,56	9,7676494	9.8588680
52	58590,10	72299,31	123398.50	9,7678242	9.8591341
53	58613,67	72343,61	123424.46	9,7679989	9.8594002
54	58637,24	72387,93	123450.44	9,7681735	9.8596661
55	58660,80	72432,27	123476,45	9,7683480	9.8599321
56	58684,35	72476,63	123502.48	9,7685223	9.8601980
57	58707.90	72521,01	123528.52	9,7686966	9.8604638
58	58731,45	72565,41	123554.59	9,7688707	9.8607296
59	58754,99	72609,83	123580.68	9,7690448	9.8609954
60	58778,53	72854,26	123606.80	9,7692187	9.8612610

54 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
30	81411,55	140194,83	172205,08	9.9106860	10,1467320
29	81394,65	140108,60	172134.89	9.9105959	10,1464648
28	81377,75	140022,45	172064.77	9.9105057	10,1461977
27	81360,84	139936,36	171994,72	9.9104155	10.1459306
26	81343,93	139850,34	171924,75	9.9103251	10,1456635
25	81327,01	139764,40	171854,84	9.9102348	10,1453966
24	81310,08	139678.52	171785,01	9.9101444	10,1451296
23	81293,14	139592,72	171715,25	9.9100539	10,1448628
22	81276,20	139506,98	171645,56	9.9099634	10,1445959
21	81259,25	139421,31	171575,94	9.9098728	10,1443292
20	81242,29	139335,71	171506,39	9.9097821	10,1440624
19	81225,32	139250,18	171436,91	9.9096915	10,1437958
18	81208,35	139164,73	171367,50	9.9096007	10,1435292
17	81191,37	139079,34	171298,17	9.9095099	10,1432626
16	81174.39	138994,01	171228,90	9.9094190	10,1429961
15	81157.40	138908,76	171159,70	9.9093281	10,1427296
14	81140,40	138823,58	171090,58	9.9092371	10,1424632
13	81123,39	138738,46	171021,52	9.9091461	10,1421969
12	81106,38	138653,42	170952,54	9.9090550	10,1419306
11	81089,36	138568,44	170883,62	9.9089639	10.1416643
10	81072,33	138483,53	170814,78	9.9088727	10,1413981
9	81055,30	138398,69	170746,00	9.9087814	10,1411320
8	81038,26	138313,92	170677,30	9.9086901	10,1408659
7	81021,21	138229,22	170608,66	9.9085988	10,1405998
6	81004,16	138144,58	170540,16	9.9085073	10,1403339
5	80987,10	138060,01	170471,60	9.9084159	10,1400679
4	80970,03	137975,51	170403,18	9.9083243	10,1398020
3	80952,96	137891,08	170334,82	9.9082327	10,1395362
2	80935,88	137806,72	170266,53	9.9081411	10,1392704
1	80918.79	137722,42	170198,31	9.9080494	10.1390046
0	80901,70	137638,19	170130,16	9.9079576	10,1387390

36 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	LogTang
0	58778.53	72654,26	123606.80	9.7692187	9.8612610
1	58802,06	72698,71	123632.94	9.7693925	9.8615267
2	58825,58	72743.18	123659.09	9.7695662	9.8617923
3	58849.10	72787,67	123685.26	9.7697398	9.8620578
4	58872,62	72832,18	123711,48	9.7699134	9.8623233
5	58896,13	72876,71	123737.68	9.7700868	9.8625887
6	58919,64	72921,26	123763.93	9.7702601	9.8628541
7	58943.14	72965.82	123790.19	9.7704332	9.8631195
8	58966,63	73010,40	123816.47	9.7706063	9.8633848
9	58990.12	73055,01	123842.78	9.7707793	9.8636500
10	59013,61	73099,63	123869.11	9.7709522	9.8639152
11	59037,09	73144,27	123895.46	9.7711249	9.8641803
12	59060,57	73188,94	123921.83	9.7712976	9.8644454
13	59084,04	73233,62	123948.22	9.7714702	9.8647105
14	59107,50	73278,31	123974.64	9.7716426	9.8649755
15	59130,96	73323,03	124001.08	9.7718150	9.8652404
16	59154,42	73367,77	124027.54	9.7719872	9.8655053
17	59177,87	73412,53	124054.02	9.7721593	9.8657702
18	59201,32	73457,30	124080.52	9.7723314	9.8660350
19	59224.76	73502,10	124107.04	9.7725033	9.8662997
20	59248,19	73546,91	124133.59	9.7726751	9.8665644
21	59271,62	73591,74	124160.16	9.7728468	9.8668291
22	59295,05	73636,60	124186.75	9.7730185	9.8670937
23	59318,47	73681,47	124213,36	9.7731900	9.8673583
24	59341.89	73726,36	124239.99	9.7733614	9.8676228
25	59365,30	73771,27	124266.65	9.7735327	9.8678873
26	59388,71	73816,20	124293.33	9.7737039	9.8681517
27	59412,11	73861,15	124320.03	9.7738749	9.8684160
28	59435.50	73906,11	124346.75	9.7740459	9.8686804
29	59458,89	73951,10	124373,49	9.7742168	9.8689446
30	59482,28	73996,11	124400,26	9.7743876	9.8692089

53 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
60	80901,70	137638.19	170130,16	9.9079576	10,1387390
59	80884,60	137554,03	170062,08	9.9078658	10,1384733
58	80867,49	137469,94	169994,07	9.9077740	10.1382077
57	80850,37	137385,91	169926,12	9.9076820	10,1379422
56	80833,25	137301,95	169858,25	9.9075901	10,1376767
55	80816,12	137218,05	169790,44	9.9074980	10,1374113
54	80798,99	137134,23	169722,71	9.9074059	10,1371459
53	80781,85	137050,47	169655,04	9.9073138	10,1368805
52	80764,70	136966,78	169587,43	9.9072216	10,1366152
51	80747.54	136883,15	169519,90	9.9071293	10.1363500
50	80730,38	136799,59	169452,44	9.9070370	10,1360848
49	80713,21	136716,10	169385,04	9.9069446	10,1358197
48	80696,03	136632,67	169317,71	9.9068522	10,1355546
47	80678,85	136549,31	169250,45	9.9067597	10,1352895
46	80661,66	136466,02	169183,26	9.9066671	10,1350245
45	80644,46	136382,79	169116,13	9.9065745	10,1347596
44	80627,26	136299,63	169049,07	9.9064819	10,1344947
43	80610,05	136216,53	168982,08	9.9063892	10,1342298
42	80592,83	136133,50	168915,16	9.9062964	10,1339650
41	80575,60	136050,54	168848,30	9.9062036	10,1337003
40	80558,37	135967,64	168781,51	9.9061107	10,1334356
39	80541,13	135884,81	168714,79	9.9060177	10,1331709
38	80523,89	135802,04	168648,14	9.9059247	10,1329063
37	80506,64	135719,34	168581,55	9.9058317	10,1326417
36	80489,38	135636,70	168515,03	9.9057386	10,1323772
35	80472,11	135554,13	168448,57	9.9056454	10,1321127
34	80454,84	135471,62	168382,18	9.9055522	10,1318483
33	80437,56	135389,18	168315,86	9.9054589	10.1315840
32	80420,28	135306,80	168249,61	9.9053656	10,1313196
31	80402,99	135224,49	168183,42	9.9052722	10,1310554
30	80385,69	135142,24	168117,30	9.9051787	10,1307911

36 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	LogTang
30	59482,28	73996,11	124400.26	9.7743876	9.8692089
31	59505,66	74041,14	124427.05	9.7745583	9.8694731
32	59529,03	74086,18	124453.86	9.7747288	9.8697372
33	59552,40	74131.24	124480.69	9.7748993	9.8700013
34	59575,77	74176,33	124507.54	9.7750697	9.8702653
35	59599,13	74221,43	124534.42	9.7752399	9.8705293
36	59622,47	74266,55	124561.31	9.7754101	9.8707933
37	59645,84	74311,70	124588.23	9.7755801	9.8710572
38	59669,18	74356,86	124615.18	9.7757501	9.8713210
39	59692,52	74402,04	124642.14	9.7759199	9.8715848
40	59715,86	74447,24	124669,13	9.7760897	9.8718486
41	59739,19	74492,46	124696.14	9.7762593	9.8721123
42	59762,51	74537,70	124723,17	9.7764289	9.8723760
43	59785.83	74582,96	124750,22	9.7765983	9.8726396
44	59809,15	74628,24	124777.30	9.7767676	9.8729032
45	59832,46	74673.54	124804.40	9.7769369	9.8731668
46	59855,76	74718,86	124831,52	9.7771060	9.8734302
47	59879,06	74764,20	124858.66	9.7772750	9.8736937
48	59902,36	74809,56	124885.83	9.7774439	9.8739571
49	59925,65	74854,94	124913,02	9.7776128	9.8742204
50	59948,93	74900,33	124940,23	9.7777815	9.8744838
51	59972,21	74945.75	124967.46	9.7779501	9.8747470
52	59995,49	74991,19	124994.71	9.7781186	9.8750102
53	60018,76	75036,65	125021.99	9.7782870	9.8752734
54	60042,02	75082,12	125049.29	9.7784553	9.8755365
55	60065,28	75127,62	125076.61	9.7786235	9.8757996
56	60088,53	75173,14	125103.96	9.7787916	9.8760627
57	60111,78	75218,67	125131.33	9.7789596	9.8763257
58	60135,03	75264,23	125158.72	9.7791275	9.8765886
59	60158,27	75309,81	125186,13	9.7792953	9.8768515
60	60181,50	75355,40	125213.57	9.7794630	9.8771144

53 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tang*
30	80385,69	135142,24	168117,30	9.9051787	10,1307911
29	80368,38	135060,06	168051,24	9.9050852	10,1305269
28	80351,07	134977,94	167985,25	9.9049916	10,1302628
27	80333,75	134895,89	167919,33	9.9048980	10,1299987
26	80316,42	134813,90	167853,47	9.9048043	10,1297347
25	80299,09	134731,97	167787,68	9.9047106	10,1294707
24	80281,75	134650,11	167721,95	9.9046168	10,1292067
23	80264,40	134568,32	167656,29	9.9045230	10,1289428
22	80247,05	134486,58	167590,70	9.9044291	10,1286790
21	80229,69	134404,92	167525,17	9.9043351	10,1284152
20	80212,32	134323,31	167459,70	9.9042411	10,1281514
19	80194,94	134241,77	167394,30	9.9041470	10,1278877
18	80177,56	134160,29	167328,97	9.9040529	10,1276240
17	80160,17	134078,88	167263,70	9.9039587	10,1273604
16	80142,78	133997,53	167198,50	9.9038644	10,1270968
15	80125,38	133916,24	167133,36	9.9037701	10,1268332
14	80107,97	133835,02	167068,28	9.9036757	10,1265698
13	80090,56	133753,86	167003,28	9.9035813	10,1263063
12	80073,14	133672,76	166938,33	9.9034868	10,1260429
11	80055,71	133591,72	166873,45	9.9033923	10,1257796
10	80038,27	133510,75	166808,64	9.9032977	10,1255162
9	80020,83	133429,84	166743,89	9.9032031	10,1252530
8	80003,38	133349,00	166679,20	9.9031084	10,1249898
7	79985,93	133268,22	166614,58	9.9030136	10,1247266
6	79968,47	133187,49	166550,02	9.9029188	10,1244635
5	79951,00	133106,84	166485,52	9.9028239	10,1242004
4	79933,52	13[illegible]6,24	166421,09	9.9027289	10,1239373
3	79916,04	132945,71	166356,73	9.9026339	10,1236743
2	79898,55	132865,24	166292,43	9.9025389	10,1234114
1	79881,05	132784,83	166228,19	9.9024438	10,1231485
0	79863,55	132704,48	166164,01	9.9023486	10,1228856

37 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tan
0	60181,50	75355,40	125213,57	9.7794630	9,8771144
1	60204.73	75401,02	125241,02	9.7796306	9,8773772
2	60227,95	75446,66	125268,50	9.7797981	9,8776400
3	60251,17	75492,32	125296,01	9.7799655	9,8779027
4	60274,39	75537,99	125323,53	9.7801328	9,8781654
5	60297,60	75583,69	125351,08	9.7803000	9,8784281
6	60320,80	75629,41	125378,65	9.7804671	9,8786907
7	60344,00	75675,14	125406,25	9.7806341	9,8789533
8	60367,19	75720,90	125433,87	9.7808010	9,8792158
9	60390,38	75766,68	125461.51	9.7809677	9,8794782
10	60413,56	75812,48	125489,17	9.7811344	9,8797407
11	60436,74	75858,29	125516,85	9.7813010	9,8800031
12	60459,91	75904,13	125544,56	9.7814675	9,8802654
13	60483,08	75949,99	125572,29	9.7816339	9,8805277
14	60506,24	75995,87	125600,05	9.7818002	9,8807900
15	60529,40	76041,77	125627,82	9.7819664	9,8810522
16	60552,55	76087,69	125655,62	9.7821324	9,8813144
17	60575,70	76133,63	125683,45	9.7822984	9,8815765
18	60598,84	76179,59	125711,29	9.7824643	9,8818386
19	60621,98	76225,57	125739.16	9.7826301	9,8821007
20	60645,11	76271,57	125767,05	9.7827958	9,8823627
21	60668,23	76317,59	125794,97	9.7829614	9,8826246
22	60691,35	76363,63	125822,91	9.7831268	9,8828866
23	60714,47	76409,69	125850,87	9.7832922	9,8831484
24	60737,58	76455,77	125878,85	9.7834575	9,8834103
25	60760,69	76501,88	125906,86	9.7836227	9,8836721
26	60783,79	76548,00	125934,89	9.7837878	9,8839338
27	60806,89	76594,14	125962,94	9.7839528	9,8841956
28	60829,98	76640,31	125991,02	9.7841177	9,8844572
29	60853,06	76686,49	126019,12	9.7842824	9,8847189
30	60876,14	76732,70	126047,24	9.7844471	9,8849805

52 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
60	79863,55	132704,48	166164,01	9.9023486	10,1228856
59	79846.04	132624,20	166099,90	9.9022534	10,1226228
58	79828,52	132543,97	166035,85	9.9021581	10,1223600
57	79811,00	132463,81	165971,87	9.9020628	10,1220973
56	79793,47	132383,71	165907,95	9.9019674	10,1218346
55	79775,93	132303,68	165844,09	9.9018719	10,1215719
54	79758,39	132223,70	165780,30	9.9017764	10,1213093
53	79740,84	132143,79	165716,57	9.9016808	10,1210467
52	79723,28	132063,93	165652,90	9.9015852	10,1207842
51	79705,72	131984,14	165589,29	9.9014895	10,1205218
50	79688,15	131904,41	165525,75	9.9013938	10,1202593
49	79670,57	131824,74	165462,27	9.9012980	10,1199969
48	79652,99	131745,13	165398,85	9.9012021	10,1197346
47	79635,40	131665,59	165335,50	9.9011062	10,1194723
46	79617,80	131586,10	165272,21	9.9010102	10,1192100
45	79600,20	131506,68	165208,98	9.9009142	10,1189478
44	79582,59	131427,31	165145,81	9.9008181	10,1186856
43	79564,97	131348,01	165082,70	9.9007219	10,1184235
42	79547,35	131268,76	165019,66	9.9006257	10,1181614
41	79529,72	131189,58	164956,68	9.9005294	10,1178993
40	79512,08	131110,46	164893,76	9.9004331	10,1176373
39	79494,43	131031,40	164830,90	9.9003367	10,1173754
38	79476,78	130952,39	164768,11	9.9002403	10,1171134
37	79459,12	130873,45	164705,37	9.9001438	10,1168516
36	79441,46	130794,57	164642,70	9.9000472	10,1165897
35	79423,79	130715,75	164580,09	9.8999506	10,1163279
34	79406,11	130636,99	164517,54	9.8998539	10,1160662
33	79388,43	130558,28	164455,06	9.8997572	10,1158044
32	79370,74	130479,64	164392,63	9.8996604	10,1155428
31	79353,04	130401,06	164330,27	9.8995636	10,1152811
30	79335,33	130322,54	164267,96	9.8994667	10,1150195

37 Grad.

Minut	Sinus	Tang.	Secant.	Log.Sin.	Log.Tan
30	60876,14	76732,70	126047,24	9.7844471	9,8849805
31	60899,22	76778,93	126075,39	9.7846117	9,8852420
32	60922,29	76825,17	126103,56	9.7847762	9,8855035
33	60945,35	76871,44	126131,75	9.7849406	9,8857650
34	60968.41	76917,73	126159.97	9.7851049	9,8860264
35	60991,47	76964,04	126188,20	9.7852691	9,8862878
36	61014,52	77010,37	126216,46	9.7854332	9,8865492
37	61037,56	77056,72	126244,75	9.7855972	9,8868105
38	61060,60	77103,09	126273.06	9.7857611	9,8870718
39	61083,63	77149,48	126301,40	9.7859249	9,8873330
40	61106,66	77195,89	126329,75	9.7860886	9,8875942
41	61129,68	77242,33	126358,13	9.7862522	9,8878554
42	61152,70	77288,79	126386,53	9.7864157	9,8881165
43	61175,72	77335,26	126414,96	9.7865791	9,8883775
44	61198,73	77381,75	126443,41	9.7867424	9,8886386
45	61221,73	77428,27	126471,88	9.7869056	9,8888996
46	61244,73	77474,81	126500,38	9.7870687	9,8891605
47	61267,72	77521,37	126528.90	9.7872317	9,8894214
48	61290,71	77567,95	126557,45	9.7873946	9,8896823
49	61313,69	77614,55	126586,01	9.7875574	9,8899432
50	61336,66	77661,17	126614,60	9.7877202	9,8902040
51	61359,63	77707,82	126643,22	9.7878828	9,8904647
52	61382,60	77754,48	126671,86	9.7880453	9,8907254
53	61405,56	77801,17	126700,52	9.7882077	9,8909861
54	61428,52	77847,88	126729,21	9.7883701	9,8912468
55	61451,47	77894,60	126757,92	9.7885323	9,8915074
56	61474,42	77941,35	126786,65	9.7886944	9,8917679
57	61497,36	77988,12	126815,41	9.7888565	9,8920285
58	61520,29	78034,92	126844,19	9.7890184	9,8922890
59	61543,22	78081,73	126872,99	9.7891802	9,8925494
60	61566,15	78128,56	126901.82	9.7893420	9.8928098

52 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
30	79335.33	130322,54	164267,96	9.8994667	10.1150195
29	79317,62	130244,07	164205,72	9.8993697	10,1147580
28	79299.90	130165,67	164143,54	9.8992727	10,1144965
27	79282,18	130087,32	164081,42	9.8991756	10,1142350
26	79264,45	130009,04	164019,36	9.8990784	10,1139736
25	79246,71	129930,81	163957,36	9.8989812	10,1137122
24	79228,96	129852,65	163895,42	9.8988840	10,1134508
23	79211,21	129774,54	163833,55	9.8987867	10,1131895
22	79193.45	129696,49	163771,73	9.8986893	10,1129282
21	79175,69	129618,50	163709,97	9.8985919	10,1126670
20	79157,92	129540,57	163648,28	9.8984944	10,1124058
19	79140,14	129462,69	163586,64	9.8983968	10,1121446
18	79122,35	129384,88	163525,07	9.8982992	10,1118835
17	79104,56	129307,12	163463,55	9.8982015	10,1116225
16	79086,76	129229,43	163402,10	9.8981038	10,1113614
15	79068,96	129151,79	163340,70	9.8980060	10,1111004
14	79051,15	129074,21	163279,37	9.8979082	10,1108395
13	79033,33	128996,69	163218,09	9.8978103	10,1105786
12	79015,50	128919,22	163156,88	9.8977123	10,1103177
11	78997,67	128841,82	163095,72	9.8976143	10,1100568
10	78979,83	128764,47	163034,62	9.8975162	10,1097960
9	78961,98	128687,18	162973,59	9.8974181	10,1095353
8	78944,13	128609,95	162912,61	9.8973199	10,1092746
7	78926,27	128532,77	162851,69	9.8972216	10,1090139
6	78908,41	128455,66	162790,83	9.8971233	10,1087532
5	78890,54	128378,60	162730,03	9.8970249	10,1084926
4	78872,66	128301,60	162669,29	9.8969265	10,1082321
3	78854,77	128224,66	162608,61	9.8968280	10,1079715
2	78836,88	128147,76	162547,99	9.8967294	10,1077110
1	78818,98	128070,93	162487,43	9.8966308	10,1074506
0	78801,07	127994,16	162426,92	9.8965321	10,1071902

38 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tan
0	61566,15	78128,56	126901.82	9.7893420	9.8928098
1	61589,07	78175,42	126930.67	9.7895036	9.8930702
2	61611,98	78222,29	126959.55	9.7896652	9.8933306
3	61634.89	78269,19	126988.45	9.7898266	9.8935909
4	61657,79	78316,11	127017.37	9.7899880	9.8938511
5	61680,69	78363,05	127046.32	9.7901493	9.8941114
6	61703,59	78410,02	127075.29	9.7903104	9.8943715
7	61726,48	78457,00	127104.29	9.7904715	9.8946317
8	61749,36	78504,00	127133.31	9.7906325	9.8948918
9	61772,24	78551,03	127162.35	9.7907933	9.8951519
10	61795,11	78598,08	127191.42	9.7909541	9.8954119
11	61817,98	78645,15	127220.51	9.7911148	9.8956719
12	61840,84	78692,24	127249.63	9.7912754	9.8959319
13	61863,70	78739,35	127278.77	9.7914359	9.8961918
14	61886,55	78786,49	127307.94	9.7915963	9.8964517
15	61909,40	78833,64	127337.12	9.7917566	9.8967116
16	61932,24	78880,82	127366.34	9.7919168	9.8969714
17	61955,07	78928,02	127395.57	9.7920769	9.8972312
18	61977.90	78975,24	127424.84	9.7922369	9.8974910
19	62000,73	79022,48	127454.12	9.7923968	9.8977507
20	62023,55	79069,75	127483.43	9.7925566	9.8980104
21	62046,36	79117,03	127512.76	9.7927163	9.8982700
22	62069,17	79164,34	127542.12	9.7928760	9.8985296
23	62091,98	79211,67	127571.50	9.7930355	9.8987892
24	62114,78	79259,02	127600.91	9.7931949	9.8990487
25	62137,57	79306,40	127630.34	9.7933543	9.8993082
26	62160,36	79353,79	127659.80	9.7935135	9.8995677
27	62183,14	79401,21	127689.28	9.7936727	9.8998271
28	62205,92	79448,65	127718.78	9.7938317	9.9000865
29	62228,69	79496,11	127748.31	9.7939907	9.9003459
30	62251,46	79543,59	127777.87	9.7941496	9.9006052

51 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
60	78801,07	127994,16	162426,92	9,8965321	10,1071902
59	78783,16	127917,45	162366,48	9,8964334	10,1069298
58	78765,24	127840,79	162306,09	9,8963346	10,1066694
57	78747.32	127764,19	162245,76	9,8962358	10,1064091
56	78729,39	127687,64	162185,49	9,8961369	10,1061489
55	78711,45	127611,16	162125,28	9,8960379	10,1058886
54	78693,50	127534,73	162065,13	9,8959389	10,1056285
53	78675,55	127458,36	162005,04	9,8958398	10,1053683
52	78657,59	127382,04	161945,00	9,8957406	10,1051082
51	78639,62	127305,78	161885,02	9,8956414	10,1048481
50	78621,65	127229,57	161825,10	9,8955422	10,1045881
49	78603,67	127153,42	161765,24	9,8954429	10,1043281
48	78585,69	127077,33	161705,44	9,8953435	10,1040681
47	78567,70	127001,30	161645,69	9,8952440	10,1038082
46	78549,70	126925,32	161586,00	9.8951445	10,1035483
45	78531,69	126849,39	161526,37	9,8950450	10,1032884
44	78513,68	126773,53	161466,80	9,8949453	10,1030286
43	78495,66	126697,72	161407,28	9,8948457	10,1027688
42	78477,64	126621,96	161347,83	9,8947459	10,1025090
41	78459,61	126546,26	161288,43	9,8946461	10,1022493
40	78441,57	126470,62	161229,08	9,8945463	10,1019896
39	78423,52	126395,03	161169,80	9,8944463	10,1017300
38	78405,47	126319,50	161110,57	9,8943464	10,1014704
37	78387,41	126244,02	161051,40	9,8942463	10,1012108
36	78369,35	126168,60	160992,28	9,8941462	10,1009513
35	78351,28	126093,23	160933,23	9,8940461	10,1006918
34	78333,20	126017,92	160874,23	9,8939458	10,1004323
33	78315,11	125942,67	160815,28	9,8938456	10,1001729
32	78297,02	125867,47	160756,40	9,8937452	10,0999135
31	78278,92	125792,32	160697,57	9,8936448	10,0996541
30	78260.82	125717,23	160638,79	9,8935444	10,0993948

38 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tan
30	62251,46	79543,59	127777.87	9.7941496	9.9006052
31	62274,22	79591,10	127807.45	9.7943083	9.9008645
32	62296,98	79638,62	127837.05	9.7944670	9.9011237
33	62319,73	79686,17	127866.67	9.7946256	9.9013830
34	62342,48	79733,74	127896.32	9.7947841	9.9016422
35	62365,22	79781,34	127926.00	9.7949425	9.9019013
36	62387,96	79828,95	127955.70	9.7951008	9.9021604
37	62410,69	79876,59	127985.43	9.7952590	9.9024195
38	62433,42	79924,25	128015.18	9.7954171	9.9026786
39	62456,14	79671,93	128044.95	9.7955751	9.9029376
40	62478,85	80019,63	128074.75	9.7957330	9.9031966
41	62501,56	80067,36	128104.57	9.7958909	9.9034555
42	62524,26	80115,11	128134.42	9.7960486	9.9037144
43	62546,96	80162,88	128164.30	9.7962062	9.9039733
44	62569,66	80210,67	128194.20	9.7963638	9.9042321
45	62592,35	80258,48	128224.12	9.7965212	9.9044910
46	62615,03	80306,32	128254.07	9.7966786	9.9047497
47	62637,71	80354,18	128284.04	9.7968359	9.9050085
48	62660,38	80402,06	128314.04	9.7969930	9.9052672
49	62683,05	80449,97	128344.06	9.7971501	9.9055259
50	62705,71	80497,90	128374.11	9.7973071	9.9057845
51	62728,37	80545,85	128404.18	9.7974640	9.9060431
52	62751,02	80593,82	128434.28	9.7976208	9.9063017
53	62773,66	80641,81	128464.40	9.7977775	9.9065603
54	62796,30	80689,83	128494.55	9.7979341	9.9068188
55	62818,94	80737,87	128524.72	9.7980906	9.9070773
56	62841,57	80785,93	128554.92	9.7982470	9.9073357
57	62864,20	80834,01	128585.14	9.7984034	9.9075941
58	62886,82	80882,12	128615.39	9.7985596	9.9078525
59	62909,43	80930,25	128645.66	9.7987158	9.9081109
60	62932,04	80978,40	128675.96	9.7988718	9.9083692

51 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tang*
30	78260.82	125717,23	160638,79	9,8935444	10,0993948
29	78242,71	125642,19	160580,08	9,8934439	10,0991355
28	78224,59	125567,21	160521.42	9,8933433	10,0988763
27	78206,46	125492,29	160462,81	9,8932426	10,0986170
26	78188,33	125417,42	160404,26	9,8931419	10,0983578
25	78170,19	125342,60	160345,77	9,8930412	10,0980987
24	78152,05	125267,84	160287,34	9,8929404	10,0978396
23	78133,90	125193,13	160228,96	9,8928395	10,0975805
22	78115,74	125118.48	160170,64	9,8927385	10,0973214
21	78097,57	125043,88	160112,37	9,8926375	10,0970624
20	78079,40	124969.33	160054,16	9,8925365	10,0968034
19	78061,22	124894,84	159996,00	9,8924354	10,0965445
18	78043,04	124820,40	159937,90	9,8923342	10,0962856
17	78024,85	124746,02	159879,86	9,8922329	10,0960267
16	78006,65	124671,69	159821,87	9,8921316	10,0957679
15	77988,45	124597,42	159763,94	9,8920303	10,0955090
14	77970,24	124523,20	159706,06	9,8919289	10,0952503
13	77952,02	124449,03	159648,24	9,8918274	10,0949915
12	77933,80	124374,92	159590,47	9,8917258	10,0947328
11	77915,57	124300,86	159532,76	9,8916242	10,0944741
10	77897,33	124226,85	159475,11	9.8915226	10,0942155
9	77879,08	124152,90	159417.51	9,8914208	10,0939569
8	77860,83	124079,00	159359,96	9,8913191	10,0936983
7	77842,57	124005,15	159302,47	9,8912172	10,0934397
6	77824,31	123931,36	159245,04	9,8911153	10,0931812
5	77806,04	123857,62	159187,66	9,8910133	10,0929227
4	77787,77	123783,93	159130,33	9,8909113	10,0926643
3	77769,49	123710,30	159073,06	9,8908092	10,0924059
2	77751,60	123636,72	159015,84	9,8907071	10,0921475
1	77732,90	123563,19	158958.68	9,8906049	10,0918891
0	77714,60	123489,72	158901,57	9,8905026	10,0916308

39 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tan
0	62932,04	80978,40	128675.96	9.7988718	9.9083692
1	62954,64	81026,58	128706.28	9.7990278	9.9086275
2	62977,24	81074,78	128736.63	9.7991836	9.9088858
3	62999,83	81123,00	128767.00	9.7993394	9.9091440
4	63022,42	81171,24	128797.40	9.7994951	9.9094022
5	63045,00	81219,51	128827.82	9.7996507	9.9096603
6	63067,58	81267,80	128858,27	9.7998062	9.9099185
7	63090,15	81316,11	128888.75	9.7999616	9.9101766
8	63112,72	81364,44	128919.25	9.8001169	9.9104347
9	63135,28	81412,80	128949.77	9.8002721	9.9106927
10	63157,84	81461,18	128980.32	9.8004272	9.9109507
11	63180,39	81509,58	129010.90	9.8005823	9.9112087
12	63202,93	81558,01	129041.50	9.8007372	9.9114666
13	63225,47	81606,46	129072.13	9.8008921	9.9117245
14	63248,00	81654,93	129102.78	9.8010468	9.9119824
15	63270,53	81703,43	129133.46	9.8012015	9.9122403
16	63293,05	81751,95	129164.16	9.8013561	9.9124981
17	63315,57	81800,49	129194.89	9.8015106	9.9127559
18	63338,08	81849,05	129225.64	9.8016649	9.9130137
19	63360,59	81897.64	129256.42	9.8018192	9.9132714
20	63383,09	81946,25	129287.23	9.8019735	9.9135291
21	63405,59	81994.88	129318.06	9.8021276	9.9137868
22	63428,08	82043,54	129348.92	9.8022816	9.9140444
23	63450,57	82092,22	129379.80	9.8024355	9.9143020
24	63473,05	82140,93	129410.71	9.8025894	9.9145596
25	63495.53	82189,65	129441.64	9.8027431	9.9148171
26	63518,00	82238,40	129472.60	9.8028968	9.9150747
27	63540,46	82287,18	129503.59	9.8030504	9.9153322
28	63562,92	82335.97	129534.60	9.8032038	9.9155896
29	63585.37	82384.79	129565.64	9.8033572	9.9158471
30	63607,82	82433,64	129596.70	9.8035105	9.9161045

50 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tang*
60	77714,60	123489,72	158901,57	9,8905026	10,0916308
59	77696,29	123416.29	158844,52	9,8904003	10,0913725
58	77677,97	123342,92	158787,52	9,8902979	10,0911142
57	77659.65	123269,61	158730,58	9,8901954	10,0908560
56	77641,32	123196,34	158673,69	9,8900929	10,0905978
55	77622,98	123123,13	158616,85	9,8899903	10,0903397
54	77604,64	123049,97	158560,07	9,8898877	10,0900815
53	77586,29	122976,87	158503,34	9,8897850	10,0898234
52	77567,94	122903,81	158446,67	9,8896822	10,0895653
51	77549,58	122830,81	158390,05	9,8895794	10,0893073
50	77531,21	122757,86	158333,48	9,8894765	10,0890493
49	77512,83	122684,96	158276,97	9,8893736	10,0887913
48	77494,45	122612,11	158220,51	9,8892706	10,0885334
47	77476,06	122539,32	158164,11	9,8891675	10,0882755
46	77457,67	122466,58	158107,76	9,8890644	10,0880176
45	77439,27	122393.89	158051,46	9,8889612	10,0877597
44	77420,86	122321,25	157995,21	9,8888580	10,0875019
43	77402,44	122248,66	157939,02	9,8887547	10,0872441
42	77384,02	122176,13	157882,89	9,8886513	10,0869863
41	77365,59	122103,64	157826,80	9.8885479	10,0867286
40	77347,16	122031,21	157770,77	9,8884444	10,0864709
39	77328,72	121958,83	157714,79	9,8883408	10,0862132
38	77310,27	121886,50	157658,87	9,8882372	10,0859556
37	77291,82	121814,22	157603.00	9,8881335	10,0856980
36	77273,36	121741,99	157547,18	9,8880298	10,0854404
35	77254,89	121669,82	157491.41	9,8879260	10,0851829
34	77236,42	121597,69	157435,70	9,8878221	10,0849253
33	77217,94	121525,62	157380,04	9,8877182	10,0846678
2	77199.45	121453,59	157324,43	9,8876142	10,0844104
1	77180,96	121381,62	157268,87	9,8875102	10,0841529
0	77162,46	121309,70	157213,37	9,8874061	10,0838955

39 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tan*
30	63607.82	82433.64	129596.70	9.8035105	9.9161045
31	63630,26	82482,51	129627.79	9.8036637	9.9163618
32	63652,70	82531,40	129658.90	9.8038168	9.9166192
33	63675.13	82580,31	129690.04	9.8039699	9.9168765
34	63697.56	82629,25	129721.21	9.8041228	9.9171338
35	63719.98	82678,21	129752.40	9.8042757	9.9173911
36	63742,40	82727,19	129783.62	9.8044284	9.9176483
37	63764,81	82776,20	129814.87	9.8045811	9.9179055
38	63787,21	82825,23	129846.14	9.8047336	9.9181627
39	63809,61	82874,29	129877.44	9.8048861	9.9184198
40	63832,01	82923.37	129908.76	9.8050385	9.9186769
41	63854,40	82972,47	129940.11	9.8051908	9.9189340
42	63876,78	83021,60	129971.48	9.8053430	9.9191911
43	63899.16	83070,75	130002.88	9.8054951	9.9194481
44	63921,53	83119.92	130034.31	9.8056472	9.9197051
45	63943.90	83169.12	130065.76	9.8057991	9.9199621
46	63966,26	83218,34	130097.24	9.8059510	9.9202191
47	63988,62	83267,59	130128.75	9.8061027	9.9204760
48	64010,97	83316,86	130160.28	9.8062544	9.9207329
49	64033,32	83366,15	130191.84	9.8064060	9.9209898
50	64055,66	83415,47	130223.43	9.8065575	9.9212466
51	64077.99	83464,81	130255.04	9.8067089	9.9215034
52	64100,32	83514,18	130286.68	9.8068602	9.9217602
53	64122,64	83563,57	130318.34	9.8070114	9.9220170
54	64144.96	83612,98	130350.03	9.8071626	9.9222737
55	64167.27	83662,42	130381.75	9.8073136	9.9225304
56	64189,58	83711,88	130413.49	9.8074646	9.9227871
57	64211.88	83761,36	130445.26	9.8076154	9.9230437
58	64234,18	83810,87	130477.06	9.8077662	9.9233004
59	64256,47	83860,40	130508.88	9.8079169	9.9235570
60	64278.76	83909.96	130540.73	9.8080675	9.9238135

50 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
30	77162,46	121309,70	157213,37	9,8874061	10,0838955
29	77143,95	121237,83	157157,92	9,8873019	10,0836382
28	77125,44	121166,01	157102,52	9,8871977	10,0833808
27	77106,92	121094,24	157047,17	9,8870934	10,0831235
26	77088,39	121022,52	156991,88	9,8869890	10,0828662
25	77069,86	120950,85	156936,64	9,8868846	10,0826089
24	77051,32	120879,23	156881,45	9,8867801	10,0823517
23	77032,78	120807,67	156826,31	9,8866756	10,0820945
22	77014,23	120736.15	156771,23	9,8865710	10,0818373
21	76995.67	120664,68	156716,19	9,8864663	10,0815802
20	76977,10	120593,27	156661.21	9,8863616	10,0813231
19	76958,53	120521,90	156606,28	9,8862568	10,0810660
18	76939.95	120450,58	156551,41	9,8861519	10,0808089
17	76921,37	120379,31	156496,58	9,8860470	10,0805519
16	76902,78	120308,10	156441,81	9.8859420	10,0802949
15	76884,18	120236,93	156387,08	9,8858370	10,0800379
14	76865,58	120165,81	156332,41	9,8857319	10,0797809
13	76846,97	120094,75	156277.79	9,8856267	10,0795240
12	76828,35	120023,73	156223,2[illegible]	9,8855215	10,0792671
11	76809,73	119952,76	156168,[illegible]	9,8854162	10,0790102
10	76791,10	119881,84	156114,24	9,8853109	10,0787534
9	76772.46	119810,97	156059.82	9,8852055	10,0784966
8	76753,82	119740,15	156005,46	9,8851000	10,0782398
7	76735,17	119669.38	155951,15	9,8849945	10,0779830
6	76716,51	119598,66	155896,89	9,8848889	10,0777263
5	76697,85	119527,99	155842.67	9,8847832	10,0774696
4	76679,18	119457,36	155788,51	9,8846775	10,0772129
3	76660,51	119386,79	155734,41	9,8845717	10,0769563
2	76641,83	119316,26	155680.35	9,8844659	10,0766996
1	76623,14	119245,79	155626,34	9,8843599	10.0764130
0	76604,41	119175,36	155572.38	9,8842540	10,0761865

40 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tan
0	64278,76	83909.96	130540.73	9.8080675	9.9238135
1	64301,04	83959.54	130572.61	9.8082180	9.9240701
2	64323,32	84009,15	130604.51	9.8083684	9.9243266
3	64345,59	84058.78	130636.44	9.8085188	9.9245831
4	64367,85	84108,44	130668.39	9.8086690	9.9248396
5	64390,11	84158,12	130700.37	9.8088192	9.9250960
6	64412,36	84207.82	130732.38	9.8089692	9.9253524
7	64434,61	84257,55	130764.42	9.8091192	9.9256088
8	64456,85	84307,30	130796.49	9.8092691	9.9258652
9	64479,09	84357.08	130828.58	9.8094189	9.9261215
10	64501,32	84406,88	130860.70	9.8095686	9.9263778
11	64523,55	84456,70	130892.84	9.8097182	9.9266341
12	64545,77	84506,55	130925.01	9.8098678	9.9268904
13	64567,98	84556,43	130957.21	9.8100172	9.9271466
14	64590,19	84606,33	130989.43	9.8101666	9.9274028
15	64612,40	84656,25	131021,68	9.8103159	9.9276590
16	64634,60	84706,20	131053.96	9.8104650	9.9279152
17	64656,79	84756,17	131086,26	9.8106141	9.9281713
18	64678,98	84806,17	131118.59	9.8107631	9.9284274
19	64701,16	84856,19	131150.95	9.8109121	9.9286835
20	64723,34	84906,24	131183.34	9.8110609	9.9289396
21	64745,51	84956,31	131215,75	9.8112096	9.9291956
22	64767,67	85006,40	131248.19	9.8113583	9.9294516
23	64789,83	85056,52	131280.66	9.8115069	9.9297076
24	64811,99	85106,67	131313.16	9.8116554	9.9299636
25	64834,14	85156,84	131345.68	9.8118038	9.9302195
26	64856,28	85207,04	131378.23	9.8119521	9.9304755
27	64878,42	85257,26	131410.81	9.8121003	9.9307314
28	64900,55	85307,50	131443,41	9.8122484	9.9309872
29	64922,68	85357.77	131476.04	9.8123965	9.9312431
30	64944,80	85408,07	131508,70	9.8125444	9.9314989

49 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
60	76604,44	119175,36	155572,38	9,8842540	10,0761865
59	76585,74	119104,98	155518,48	9,8841479	10,0759299
58	76567,03	119034,65	155464,62	9,8840418	10,0756734
57	76548,32	118964,37	155410,81	9,8839357	10,0754169
56	76529,60	118894,14	155357,06	9,8838294	10,0751604
55	76510,87	118823,95	155303,35	9,8837232	10,0749040
54	76492,14	118753,82	155249,70	9,8836168	10,0746476
53	76473,40	118683.73	155196,09	9,8835104	10,0743912
52	76454,65	118613,69	155142,54	9,8834039	10,0741348
51	76435,90	118543,70	155089,04	9,8832974	10,0738785
50	76417,14	118473,76	155035,58	9,8831908	10,0736222
49	76398,37	118403,87	154982,18	9,8830841	10,0733659
48	76379,60	118334,02	154928,82	9,8829774	10.0731096
47	76360,82	118264,22	154875.52	9,8828706	10,0728534
46	76342,04	118194,47	154822,26	9,8827638	10,0725972
45	76323,25	118124,77	154769,06	9.8826568	10,0723410
44	76304.45	118055,12	154715,90	9,8825499	10,0720848
43	76285,64	117985,51	154662,80	9,8824428	10,0718287
42	76266,83	117915,95	154609,74	9,8823357	10,0715726
41	76248,01	117846,44	154556,73	9,8822285	10,0713165
40	76229,19	117776,98	154503,78	9,8821213	10,0710604
39	76210,36	117707,56	154450,87	9,8820140	10,0708044
38	76191,52	117638,20	154398,01	9,8819067	10,0705484
37	76172,68	117568,88	154345,20	9,8817992	10,0702924
36	76153.83	117499.60	154292,44	9,8816918	10,0700364
35	76134,97	117430.38	154239,73	9,8815842	10,0697805
34	76116,11	117361,20	154187,06	9,8814766	10,0695245
33	76097,24	117292,07	154134,45	9,8813689	10,0692686
32	76078,37	117222,98	154081,89	9,8812612	10,0690128
31	76059,49	117153,95	154029,37	9,8811534	10,0687569
30	76040,60	117084,96	153976,90	9,8810455	10,0685011

40 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tan*
30	64944,80	85408,07	131508.70	9.8125444	9.9314989
31	64966,92	85458,39	131541.39	9.8126923	9.9317547
32	64989,03	85508,73	131574.10	9.8128401	9.9320105
33	65011,14	85559,10	131606.84	9.8129878	9.9322662
34	65033,24	85609,50	131639.61	9.8131354	9.9325220
35	65055,33	85659,92	131672.41	9.8132829	9.9327777
36	65077,42	85710,37	131705.23	9.8134303	9.9330334
37	65099,50	85760,84	131738.08	9.8135777	9.9332890
38	65121,58	85811,33	131770.96	9.8137250	9.9335446
39	65143,66	85861,85	131803.86	9.8138721	9.9338003
40	65165,72	85912,40	131836.79	9.8140192	9.9340559
41	65187,78	85962,97	131869.75	9.8141662	9.9343114
42	65209,84	86013,57	131902.74	9.8143131	9.9345670
43	65231,89	86064,19	131935.76	9.8144600	9.9348225
44	65253,94	86114,84	131968.81	9.8146067	9.9350780
45	65275,98	86165,51	132001.88	9.8147534	9.9353335
46	65298,01	86216,21	132034.98	9.8148999	9.9355889
47	65320,04	86266,93	132068.11	9.8150464	9.9358444
48	65342,05	86317,68	132101.26	9.8151928	9.9360998
49	65364,08	86368,46	132134.44	9.8153391	9.9363552
50	65386,09	86419,26	132167.65	9.8154854	9.9366105
51	65408,10	86470,09	132200.89	9.8156315	9.9368659
52	65430,10	86520,94	132234.16	9.8157776	9.9371212
53	65452,09	86571,81	132267.45	9.8159235	9.9373765
54	65474,08	86622,71	132300.77	9.8160694	9.9376318
55	65496,06	86673,64	132334.12	9.8162152	9.9378871
56	65518,04	86724,60	132367.50	9.8163609	9.9381423
57	65540,01	86775,58	132400.91	9.8165066	9.9383975
58	65561,98	86826,59	132434.35	9.8166521	9.9386527
59	65583,94	86877,62	132467.81	9.8167975	9.9389079
60	65605,90	86928,68	132501.30	9.8169429	9.9391631

49 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
30	76040,60	117084,96	153976,90	9,8810455	10,0685011
29	76021,70	117016,01	153924,49	9,8809376	10,0682453
28	76002,80	116947,12	153872,12	9,8808296	10.0679895
27	75983,89	116878,27	153819,80	9,8807215	10,0677338
26	75964,98	116809.47	153767,52	9,8806134	10,0674780
25	75946,06	116740,71	153715,30	9,8805052	10,0672223
24	75927,13	116672,00	153663,12	9,8803970	10,0669666
23	75908,20	116603,34	153611,00	9,8802887	10,0667110
22	75889,26	116534,72	153558,92	9,8801803	10,0664554
21	75870,31	116466,15	153506.89	9,8800719	10.0661997
20	75851,36	116397,63	153454,91	9,8799634	10,0659441
19	75832,40	116329,16	153402,97	9,8798548	10,0656886
18	75813,43	116260,73	153351,09	9,8797462	10,0654330
17	75794,46	116192,34	153299,25	9,8796375	10,0651775
16	75775,48	116124,00	153247,46	9,8795287	10,0649220
15	75756,50	116055,71	153195,72	9,8794199	10,0646665
14	75737,51	115987,47	153144,03	9,8793110	10,0644111
13	75718,51	115919,27	153092,38	9,8792021	10,0641556
12	75699,50	115851,11	153040,78	9,8790930	10,0639002
11	75680,49	115783,01	152989,23	9,8789840	10,0636448
10	75661,47	115714,95	152937,73	9,8788748	10,0633895
9	75642,45	115646,93	152886,27	9,8787656	10,0631341
8	75623,42	115578,96	152834,87	9,8786563	10,0628788
7	75604,39	115511,04	152783,51	9,8785470	10,0626235
6	75585,35	115443,16	152732,19	9,8784376	10,0623682
5	75566,30	115375,32	152680,93	9,8783281	10,0621129
4	75547,24	115307,54	152629,71	9,8782186	10,0618577
3	75528,18	115239,79	152578,54	9,8781090	10.0616025
2	75509,11	115172,10	152527,41	9,8779994	10,0613473
1	75490,04	115104,45	152476,34	9,8778896	10,0610921
0	75470,96	115036,84	152425,31	9,8777799	10,0608369

41 Grad.

Minut.	Sinus.	Tang.	Secant.	Log.Sin.	Log.Tan
0	65605,90	86928,68	132501,30	9.8169429	9.9391631
1	65627,85	86979,76	132534,82	9.8170882	9.9394182
2	65649,80	87030,87	132568,37	9.8172334	9.9396733
3	65671,74	87082,00	132601,94	9.8173785	9.9399284
4	65693,67	87133,16	132635.54	9.8175235	9.9401835
5	65715,60	87184,35	132669,18	9.8176685	9.9404385
6	65737,52	87235,56	132702,84	9.8178133	9.9406936
7	65759,44	87286,80	132736.53	9.8179581	9.9409486
8	65781,35	87338,06	132770,25	9.8181028	9.9412036
9	65803,26	87389,35	132803,99	9.8182474	9.9414585
10	65825,16	87440,67	132837,76	9.8183919	9.9417135
11	65847,06	87492,01	132871,56	9.8185364	9.9419684
12	65868,95	87543,38	132905,39	9.8186807	9.9422233
13	65890,83	87594,78	132939,25	9.8188250	9.9424782
14	65912.71	87646,20	132973,14	9.8189692	9.9427331
15	65934,58	87697,65	133007,06	9.8191133	9.9429879
16	65956,45	87749,12	133041,00	9.8192573	9.9432428
17	65978,31	87800,62	133074,97	9.8194012	9.9434976
18	66000,17	87852,15	133108,97	9.8195450	9.9437524
19	66022,02	87903,70	133143,00	9.8196888	9.9440072
20	66043,86	87955,28	133177,06	9.8198325	9.9442619
21	66065,70	88006,89	133211,15	9.8199761	9.9445166
22	66087,53	88058,52	133245,27	9.8201196	9.9447714
23	66109,36	88110,18	133279,42	9.8202630	9.9450261
24	66131,18	88161,86	133313,59	9.8204063	9.9452807
25	66153,00	88213,57	133347,79	9.8205496	9.9455354
26	66174,81	88265,31	133382,02	9.8206927	9.9457900
27	66196,62	88317,07	133416,28	9.8208358	9.9460447
28	66218,42	88368,86	133450,57	9.8209788	9.9462993
29	66240,22	88420,68	133484,89	9.8211217	9.9465539
30	66262,01	88472,53	133519,24	9.8212646	9.9468084

48 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
60	75470,96	115036,84	152425,31	9,8777799	10,0608369
59	75451,87	114969,28	152374,33	9,8776700	10,0605818
58	75432,78	114901,76	152323,39	9,8775601	10,0603267
57	75413,68	114834,29	152272,50	9,8774501	10,0600716
56	75394,57	114766,87	152221,66	9,8773401	10,0598165
55	75375,46	114699,49	152170,87	9,8772300	10,0595615
54	75356,34	114632,15	152120,12	9,8771198	10.0593064
53	75337,21	114564,86	152069,42	9,8770096	10,0590514
52	75318,08	114497,62	152018,76	9,8768993	10,0587964
51	75298,94	114430,41	151968,15	9,8767889	10,0585415
50	75279,80	114363,26	151917,59	9,8766785	10,0582865
49	75260,65	114296,15	151867,08	9,8765680	10,0580316
48	75241,49	114229,08	151816,61	9,8764574	10,0577767
47	75222,33	114162,06	151766,19	9,8763468	10,0575218
46	75203,16	114095,08	151715,81	9,8762361	10,0572669
45	75183,98	114028,15	151665,48	9,8761253	10,0570121
44	75164,80	113961,26	151615,20	9,8760145	10,0567572
43	75145,61	113894,41	151564,96	9,8759036	10,0565024
42	75126,41	113827,61	151514,77	9,8757927	10,0562476
41	75107,21	113760,85	151464,62	9,8756816	10,0559928
40	75088,00	113694,14	151414,52	9,8755706	10,0557381
39	75068,79	113627,47	151364,47	9,8754594	10,0554834
38	75049,57	113560,85	151314,46	9,8753482	10,0552286
37	75030,34	113494,27	151264,50	9,8752369	10,0549739
36	75011,11	113427,73	151214,59	9,8751256	10.0547153
35	74991,87	113361.24	151164,72	9,8750142	10,0544646
34	74972,62	113294,79	151114,89	9,8749027	10,0542100
33	74953,37	113228,39	151065,11	9,8747912	10,0539553
32	74934,11	113162,03	151015,38	9,8746795	10.0537007
31	74914,84	113095,71	150965,69	9,8745679	10,0534461
30	74895,57	113029,44	150916,05	9,8744561	10,0531916

41 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tan
30	66262,01	88472,53	133519,24	9.8212646	9.9468084
31	66283,79	88524,40	133553,62	9.8214073	9.9470630
32	66305,57	88576,30	133588,03	9.8215500	9.9473175
33	66327.34	88628,22	133622,46	9.8216926	9.9475720
34	66349,11	88680,17	133656,92	9.8218351	9.9478265
35	66370,87	88732,15	133691,41	9.8219775	9.9480810
36	66392,62	88784,16	133725,94	9.8221198	9.9483355
37	66414.37	88836,20	133760,49	9.8222621	9.9485899
38	66435,11	88888,26	133795,07	9.8224042	9.9488443
39	66457.85	88940,34	133829,68	9.8225463	9.9490987
40	66479,59	88992,45	133864,32	9.8226883	9.9493531
41	66501,32	89044,59	133898,99	9.8228302	9.9496075
42	66523,04	89096,75	133933,69	9.8229721	9.9498619
43	66544,75	89148,94	133968,42	9.8231138	9.9501162
44	66566,46	89201,16	134003,17	9.8232555	9.9503705
45	66588,17	89253,41	134037.95	9.8233971	9.9506248
46	66609,87	89305,69	134072,76	9.8235386	9.9508791
47	66631,56	89357,99	134107,61	9.8236800	9.9511334
48	66653,25	89410,32	134142,48	9.8238213	9.9513876
49	66674,93	89462,68	134177.38	9.8239626	9.9516419
50	66696,61	89515,06	134212,32	9.8241037	9.9518961
51	66718.28	89567,47	134247,28	9.8242448	9.9521503
52	66739,94	89619,91	134282,27	9.8243858	9.9524045
53	66761,60	89672,38	134317,29	9.8245267	9.9526587
54	66783,26	89724,87	134352,34	9.8246676	9.9529128
55	66804,91	89777,39	134387,42	9.8248083	9.9531670
56	66826,55	89829,94	134422,53	9.8249490	9.9534211
57	66848,18	89882,52	134457,67	9.8250896	9.9536752
58	66869,81	89935,12	134492,84	9.8252301	9.9539293
59	66891,44	89987,75	134528,04	9.8253705	9.9541834
60	66913,06	90040,41	134563,27	9.8255109	9.9544374

48 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
30	74895,57	113029,44	150916,05	9,8744561	10,0531916
29	74876,29	112963,21	150866,45	9,8743443	10,0529370
28	74857,01	112897,02	150816,90	9,8742325	10,0526825
27	74837,72	112830,88	150767,39	9,8741205	10,0524280
26	74818,42	112764,78	150717,93	9,8740085	10,0521735
25	74799,12	112698,72	150668,52	9,8738965	10,0519190
24	74779,81	112632,71	150619,15	9,8737844	10,0516645
23	74760,49	112566,74	150569,82	9,8736722	10,0514101
22	74741,17	112500,81	150520,54	9,8735599	10,0511557
21	74721,84	112434,93	150471,31	9,8734476	10,0509013
20	74702,51	112369,09	150422,11	9,8733352	10,0506469
19	74683,17	112303,29	150372,97	9,8732227	10,0503925
18	74663,82	112237,54	150323,87	9,8731102	10,0501381
17	74644,46	112171,83	150274,81	9,8729976	10,0498838
16	74625,10	112106,16	150225,80	9,8728849	10,0496295
15	74605,74	112040,53	150176,83	9,8727722	10,0493752
14	74586,37	111974,95	150127,91	9,8726594	10,0491209
13	74566,99	111909,41	150079,03	9,8725466	10,0488666
12	74547,60	111843,91	150030,20	9,8724337	10,0486124
11	74528,21	111778,46	149981,41	9,8723207	10,0483581
10	74508.81	111713,05	149932,67	9,8722076	10,0481039
9	74489,40	111647,68	149883,97	9,8720945	10,0478497
8	74469,99	111582,35	149835,31	9,8719813	10,0475955
7	74450,57	111517,06	149786,70	9,8718681	10,0473413
6	74431,15	111451,82	149738,13	9,8717543	10,0470872
5	74411,72	111386,62	149689,61	9,8716414	10,0468330
4	74392,29	111321,46	149641,13	9,8715279	10,0465789
3	74372,85	111256,35	149592,70	9,8714144	10,0463248
2	74353,40	111191,27	149544,30	9,8713008	10,0460707
1	74333,94	111126,24	149495,96	9,8711872	10,0458166
0	74314,48	111061,25	149447,65	9,8710735	10,0455626

42 Grad.

Minut.	Sinus	Tang.	Secant.	*Log. Sin.*	*Log. Tan*
0	66913,06	90040,41	134563.27	9.8255109	9.954437
1	66934,67	90093,09	134598.53	9.8256512	9.954691
2	66956,28	90145,80	134633.82	9.8257913	9.954945
3	66977,88	90198,54	134669.14	9.8259314	9.955199
4	66999,48	90251,31	134704.49	9.8260715	9.955453
5	67021,07	90304,11	134739.87	9.8262114	9.955707
6	67042,66	90356,94	134775.28	9.8263512	9.955961
7	67064,24	90409.79	134810,72	9.8264910	9.956215
8	67085,82	90462,67	134846.19	9.8266307	9.956469
9	67107,39	90515,58	134881.69	9.8267703	9.956723
10	67128,95	90568,51	134917.21	9.8269098	9.956977
11	67150,51	90621,47	134952.77	9.8270493	9.957231
12	67172,06	90674.46	134988.36	9.8271887	9.957485
13	67193,61	90727,48	135023,98	9.8273279	9.957738
14	67215,15	90780,53	135059,63	9.8274671	9.957992
15	67236,68	90833,60	135095.31	9.8276063	9.958246
16	67258,21	90886,71	135131.02	9.8277453	9.958500
17	67279,73	90939.84	135166.76	9.8278843	9.958754
18	67301,25	90993.00	135202.54	9.8280231	9.959008
19	67322,76	91046,19	135238.34	9.8281619	9.9592618
20	67344,27	91099.41	135274.17	9.8283006	9.959515
21	67365,77	91152,65	135310.03	9.8284393	9.959769
22	67387,27	91205,92	135345.93	9.8285778	9.960023
23	67408,76	91259,22	135381.86	9.8287163	9.9602767
24	67430,24	91312,55	135417.81	9.8288547	9.960530
25	67451,72	91365,91	135453.79	9.8289930	9.9607842
26	67473,19	91419,29	135489.80	9.8291312	9.9610378
27	67494,66	91472,70	135525,85	9.8292694	9.961291
28	67516,12	91526,15	135561.93	9.8294075	9.9615452
29	67537.57	91579,62	135598.03	9.8295454	9.9617988
30	67559,02	91633,12	135634.17	9.8296833	9.9620525

47 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
0	74314,48	111061,25	149447,65	9,8710735	10,0455626
9	74295,01	110996,30	149399,40	9,8709597	10,0453085
8	74275,54	110931,40	149351,18	9,8708458	10,0450545
7	74256,06	110866,53	149303,01	9,8707319	10,0448005
6	74236,57	110801,71	149254,88	9,8706179	10,0445465
5	74217,08	110736,93	149206,80	9,8705039	10,0442925
4	74197.58	110672,19	149158,75	9,8703898	10,0440385
3	74178,08	110607,50	149110,76	9,8702756	10,0437846
2	74158,57	110542,84	149062,80	9,8701613	10,0435306
1	74139,05	110478,23	149014,89	9,8700470	10,0432767
0	74119,53	110413,65	148967,03	9,8699326	10,0430228
9	74100,00	110349,12	148919,20	9,8698182	10,0427689
	74080.46	110284,63	148871,42	9,8697037	10,0425150
	74060,92	110220,19	148823,69	9,8695891	10,0422611
	74041,37	110155,78	148775,99	9,8694744	10,0420073
	74021,81	110091,41	148728,34	9,8693597	10,0417535
	74002,25	110027,09	148680,73	9,8692449	10,0414996
	73982,68	109962,81	148633,17	9,8691301	10,0412458
	73963,11	109898,56	148585,65	9,8690152	10,0409920
	73943,53	109834,36	148538,17	9,8689002	10,0407382
	73923,94	109770,20	148490,73	9,8687851	10,0404845
	73904,35	109706,08	148443,34	9,8686700	10,0402307
	73884,75	109642,01	148395,99	9,8685548	10,0399770
	73865,15	109577,97	148348,68	9,8684396	10,0397233
	73845.54	109513,97	148301,42	9,8683242	10,0394695
	73825,92	109450,02	148254,20	9,8682088	10,0392158
	73806,29	109386,10	148207,02	9,8680934	10,0389622
	73786,66	109322,23	148159,88	9,8679779	10,0387085
	73767,02	109258,40	148112,78	9,8678623	10,0384548
	73747,38	109194,60	148065,73	9,8677466	10,0382012
	73727,73	109130,85	148018,72	9,8676309	10,0379475

42 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. T
30	67559,02	91633,12	135634.17	9.8296833	9.96205
31	67580,46	91686,65	135670,34	9.8298212	9.96230
32	67601,90	91740,20	135706.54	9.8299589	9.96255
33	67623.33	91793,79	135742.77	9.8300966	9.96281
34	67644,76	91847,40	135779.03	9.8302342	9.96306
35	67666,18	91901,04	135815.32	9.8303717	9.96332
36	67687,60	91954,71	135851.64	9.8305091	9.96357
37	67709,01	92008,41	135888.00	9.8306464	9.96382
38	67730,41	92062,14	135924.38	9.8307837	9.96408
39	67751,81	92115,90	135960.80	9.8309209	9.96433
40	67773,20	92169,68	135997.25	9.8310580	9.96458
41	67794,59	92223,50	136033.72	9.8311950	9.96484
42	67815,97	92277,34	136070.23	9.8313320	9.96509
43	67837,34	92331,22	136106.77	9.8314688	9.96534
44	67858,71	92385,12	136143.34	9.8316056	9.96560
45	67880,07	92439,05	136179.95	9.8317423	9.96585
46	67901,43	92493,01	136216.58	9.8318789	9.96610
47	67922,78	92547,00	136253.24	9.8320155	9.96636
48	67944,13	92601,01	136289.94	9.8321519	9.96661
49	67965,47	92655,06	136326.67	9.8322883	9.966869
50	67986,81	92709,14	136363.43	9.8324246	9.967122
51	68008,14	92763,24	136400.22	9.8325609	9.967375
52	68029.46	92817.38	136437.04	9.8326970	9.96762
53	68050,78	92871,54	136473.89	9.8328331	9.967882
54	68072,09	92925.73	136510.78	9.8329691	9.968136
55	68093,39	92979,96	136547.70	9.8331050	9.968389
56	68114,69	93034,21	136584.64	9.8332408	9.968642
57	68135,99	93088,49	136621.62	9.8333766	9.968896
58	68157.28	93142,80	136658.63	9.8335122	9.969149
59	68178,56	93197,14	136695.67	9.8336478	9.969402
60	68199,84	93251,51	136732.75	9.8337833	9.969655

47 Grad.

Min.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tang
0	73727,73	109130,85	148018,72	9,8676309	10,0379475
9	73708,08	109067,14	147971,76	9,8675151	10,0376939
8	73688,42	109003,47	147924,83	9,8673992	10,0374403
7	73668,75	108939,83	147877,95	9,8672833	10,0371867
6	73649,07	108876,24	147831,11	9,8671673	10,0369331
5	73629,39	108812,69	147784,31	9,8670512	10,0366796
4	73609,71	108749,18	147737,55	9,8669351	10,0364260
3	73590,02	108685,71	147690,84	9,8668189	10,0361725
2	73570,32	108622,28	147644,17	9,8667026	10,0359189
1	73550,61	108558,89	147597,54	9,8665863	10,0356654
0	73530,90	108495,54	147550,95	9,8664699	10,0354119
9	73511,18	108432,23	147504,40	9,8663534	10,0351584
8	73491,46	108368,96	147457,90	9,8662369	10,0349049
7	73471,73	108305,73	147411,44	9,8661203	10,0346514
6	73451,99	108242,54	147365,01	9,8660036	10,0343980
5	73432,25	108179,39	147318,64	9,8658868	10,0341445
4	73412,50	108116,28	147272,30	9,8657700	10,0338911
3	73392,75	108053,21	147226,00	9,8656531	10,0336377
2	73372,09	107990,18	147179,75	9.8655362	10,0333843
1	73353,22	107927,18	147133,53	9,8654192	10,0331308
0	73333,45	107864,23	147087,36	9,8653021	10,0328775
9	73313,67	107801,32	147041,23	9.8651849	10,0326241
8	73293,88	107738,44	146995,14	9,8650677	10,0323707
7	73274,09	107675,61	146949,10	9,8649504	10,0321173
6	73254,29	107612,82	146903,09	9,8648331	10,0318640
5	73234,48	107550,06	146857,13	9,8647156	10,0316107
4	73214,67	107487,34	146811.20	9,8645981	10,0313573
3	73194,85	107424,67	146765,32	9,8644806	10,0311040
2	73175,03	107362,03	146719,48	9,8643629	10,0308507
1	73155,20	107299.43	146673,68	9,8642452	10,0305974
0	73135,37	107236,87	146627,92	9,8641275	10,0303441

43 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tan
0	68199,84	93251,51	136732.75	9.8337833	9.9696559
1	68221,11	93305,91	136769.85	9.8339188	9.9699091
2	68242,37	93360,34	136806.99	9.8340541	9.9701624
3	68263,63	93414,79	136844.16	9.8341894	9.9704157
4	68284,88	93469,28	136881.36	9.8343246	9.9706689
5	68306,13	93523,80	136918.59	9.8344597	9.9709221
6	68327,37	93578,34	136955.86	9.8345948	9.9711754
7	68348,61	93632,92	136993.15	9.8347297	9.9714286
8	68369,84	93687,53	137030.48	9.8348646	9.9716818
9	68391,07	93742,16	137067.84	9.8349994	9.9719350
10	68412,29	93796,83	137105.23	9.8351341	9.9721882
11	68433,50	93851,52	137142.66	9.8352688	9.9724413
12	68454,71	93906,25	137180.11	9.8354033	9.9726945
13	68475,91	93961,01	137217.60	9.8355378	9.9729477
14	68497,11	94015,79	137255.12	9.8356722	9.9732008
15	68518,30	94070,61	137292.68	9.8358066	9.9734539
16	68539,48	94125,45	137330.26	9.8359408	9.9737071
17	68560,66	94180,33	137367.88	9.8360750	9.9739602
18	68581.83	94235,23	137405.53	9.8362091	9.9742133
19	68603,00	94290,17	137443.21	9.8363431	9.9744664
20	68624,16	94345,13	137480.92	9.8364771	9.9747195
21	68645,32	94400,13	137518.67	9.8366109	9.9749726
22	68666,47	94455,16	137556.45	9.8367447	9.9752257
23	68687,61	94510,21	137594.26	9.8368784	9.9754787
24	68708,75	94565,30	137632.10	9.8370121	9.9757318
25	68729,88	94620,42	137669.98	9.8371456	9.9759849
26	68751,01	94675,56	137707.89	9.8372791	9.9762379
27	68772,13	94730,74	137745.83	9.8374125	9.9764909
28	68793,24	94785,95	137783.80	9.8375458	9.9767440
29	68814,35	94841,19	137821.81	9.8376790	9.9769970
30	68835,45	94896,46	137859.85	9.8378122	9.9772500

46 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
60	73135,37	107236,87	146627,92	9,8641275	10,0303441
59	73115,53	107174,35	146582,20	9,8640096	10,0300909
58	73095.68	107111,87	146536,52	9,8638917	10,0298376
57	73075,83	107049,43	146490,88	9,8637737	10,0295843
6	73055,97	106987,02	146445,29	9,8636557	10,0293311
5	73036,10	106924,66	146399,73	9,8635376	10,0290779
4	73016,23	106862,33	146354,22	9,8634194	10,0288246
3	72996,35	106800,04	146308.75	9,8633011	10,0285714
2	72976,46	106737,79	146263,31	9,8631828	10,0283182
1	72956,57	106675,58	146217,92	9,8630644	10,0280650
0	72936,67	106613,41	146172,57	9,8629460	10,0278118
9	72916,77	106551,28	146127,26	9,8628274	10,0275587
8	72896,86	106489,18	146081,98	9,8627088	10,0273055
7	72876,94	106427,13	146036,75	9,8625902	10,0270523
6	72857,02	106365,11	145991,56	9,8624714	10,0267992
5	72837,09	106303,13	145946,41	9.8623526	10,0265461
4	72817,16	106241,19	145901,30	9,8622338	10,0262929
3	72797,22	106179,29	145856,23	9,8621148	10,0260398
2	72777,27	106117,42	145811,20	9.8619958	10,0257867
1	72757,32	106055,60	145766,21	9,8618767	10,0255336
0	72737,36	105993,81	145721,27	9,8617576	10,0252805
9	72717.40	105932,06	145676,36	9,8616383	10,0250274
8	72697,43	105870,34	145631,49	9,8615190	10,0247743
7	72677,45	105808,67	145586,66	9,8613997	10,0245213
6	72657,47	105747,03	145541,87	9,8612803	10,0242682
5	72637,48	105685,44	145497,12	9,8611608	10,0240151
4	72617,48	105623,88	145452,41	9,8610412	10,0237621
3	72597,48	105562,35	145407,74	9,8609215	10,0235091
2	72577,47	105500,87	145363,11	9,8608018	10,0232560
1	72557,46	105439,42	145318,52	9,8606821	10,0230030
0	72537,44	105378,01	145273,97	9,8605622	10,0227500

43 Grad.

Minut.	Sinus	Tang.	Secant.	Log.Sin.	Log.Tan
30	68835.45	94896,46	137859.85	9.8378122	9.9772500
31	68856,55	94951,76	137897.92	9.8379453	9.9775030
32	68877,64	95007,09	137936.02	9.8380783	9.9777560
33	68898.73	95062,45	137974.16	9.8382112	9.9780090
34	68919,81	95117,84	138012.33	9.8383441	9.9782620
35	68940,89	95173,26	138050.53	9.8384769	9.9785149
36	68961,96	95228,71	138088.77	9.8386096	9.9787679
37	68983,02	95284,20	138127.04	9.8387422	9.9790209
38	69004,07	95339,71	138165.34	9.8388747	9.9792738
39	69025,12	95395,26	138203.67	9.8390072	9.9795268
40	69046,17	95450,83	138242,04	9.8391396	9.9797797
41	69067,21	95506,44	138280.44	9.8392719	9.9800326
42	69088,24	95562,08	138318.87	9.8394041	9.9802856
43	69109,27	95617,74	138357.34	9.8395363	9.9805385
44	69130,29	95673.44	138395.84	9.8396684	9.9807914
45	69151,31	95729,17	138434.37	9.8398004	9.9810443
46	69172,32	95784,94	138472.94	9.8399323	9.9812972
47	69193.32	95840,73	138511.54	9.8400642	9.9815501
48	69214.32	95896,55	138550.17	9.8401959	9.9818030
49	69235,31	95952,41	138588,83	9.8403276	9.9820559
50	69256,30	96008,29	138627.53	9.8404593	9.9823087
51	69277,28	96064,21	138666,26	9.8405908	9.9825616
52	69298,25	96120,16	138705.03	9.8407223	9.9828145
53	69319.22	96176,14	138743.83	9.8408537	9.9830673
54	69340,18	96232,15	138782,66	9.8409850	9.9833202
55	69361,14	96288,19	138821.53	9.8411162	9.9835730
56	69382,09	96344,27	138860,42	9.8412474	9.9838259
57	69403,04	96400,37	138899.36	9.8413785	9.9840787
58	69423,98	96456,51	138938.32	9.8415095	9.9843315
59	69444.91	96512,68	138977.32	9.8416404	9.9845844
60	69465,84	96568,88	139016,36	9.8417713	9.9848372

46 Grad.

Minut.	Sinus	Tang.	Secant.	*Log.Sin.*	*Log.Tang*
30	72537,44	105378,01	145273,97	9,8605622	10,0227500
29	72517.41	105316,64	145229,46	9,8604423	10,0224970
28	72497,38	105255,31	145184,98	9,8603223	10,0222440
27	72477,34	105194,01	145140,55	9,8602022	10,0219910
26	72457,29	105132,75	145096,16	9,8600821	10,0217380
25	72437,24	105071,53	145051,81	9,8599619	10,0214851
24	72417,18	105010,34	145007,49	9,8598416	10,0212321
23	72397,12	104949,20	144963,22	9,8597213	10,0209791
22	72377,05	104888,09	144918,98	9,8596009	10,0207262
21	72356,98	104827,02	144874,78	9,8594804	10,0204732
20	72336,90	104765,98	144830,63	9,8593599	10,0202203
19	72316,81	104704,98	144786,51	9,8592393	10,0199674
8	72296,71	104644,02	144742,43	9,8591186	10,0197144
7	72276,61	104583,10	144698,39	9,8589978	10,0194615
6	72256,51	104522,21	144654,39	9,8588770	10,0192086
5	72236,40	104461,36	144610,43	9,8587561	10,0189557
4	72216,28	104400,55	144566,51	9,8586351	10,0187028
3	72196,15	104339,77	144522,62	9,8585141	10,0184499
2	72176,02	104279,04	144478,78	9,8583929	10,0181970
1	72155,88	104218,33	144434,97	9,8582718	10,0179441
0	72135,74	104157,67	144391,20	9,8581505	10,0176913
9	72115,59	104097,04	144347,48	9,8580292	10,0174384
8	72095,44	104036,45	144303,79	9.8579078	10,0171855
7	72075,28	103975,89	144260,13	9,8577863	10,0169327
6	72055,11	103915,37	144216,52	9,8576648	10,0166798
	72034,94	103854.89	144172,95	9,8575432	10,0164270
4	72014,76	103794,45	144129.41	9,8574215	10,0161741
	71994,57	103734,04	144085,91	9,8572998	10,0159213
	71974,38	103673,67	144042,46	9,8571779	10,0156685
	71954,18	103613,33	143999,04	9,8570561	10,0154156
	71933,98	103553,03	143955,65	9,8569341	10,0151628

44 Grad.

Minut.	Sinus	Tang.	Secans	Log.Sin.	Log.Tan
0	69465,84	96568,88	139016,36	9.8417713	9.9848372
1	69486,76	96625,11	139055,43	9.8419021	9.985090
2	69507,67	96681,37	139094,53	9.8420328	9.985342
3	69528,58	96737,67	139133,66	9.8421634	9.985595
4	69549.49	96794.00	139172,83	9.8422939	9.985848
5	69570,39	96850,35	139212,03	9.8424244	9.986101
6	69591,28	96906,74	139251,27	9.8425546	9.986354
7	69612,17	96963,16	139290,54	9.8426851	9.986606
8	69633,05	97019,62	139329,85	9.8428154	9.986859
9	69653,92	97076,10	139369,18	9.8429456	9.987112
10	69674,79	97132,62	139408,56	9.8430757	9.987365
11	69695,65	97189,17	139447,96	9.8432057	9.987617
12	69716,51	97245,75	139487,40	9.8433356	9.987870
13	69737,36	97302,36	139526,88	9.8434655	9.988123
14	69758,21	97359,01	139566,39	9.8435953	9.988376
15	69779,05	97415,69	139605,93	9.8437250	9.988628
16	69799,88	97472,40	139645,51	9.8438547	9.988881
17	69820,71	97529,14	139685,12	9.8439842	9.989134
18	69841,53	97585,91	139724,77	9.8441137	9.989387
19	69862,34	97642.72	139764,45	9.8442432	9.989639
20	69883,15	97699,56	139804,16	9.8443725	9.989891
21	69903,96	97756,43	139843,91	9.8445018	9.99014
22	69924,76	97813,33	139883,69	9.8446310	9.99039
23	69945,55	97870,27	139923,51	9.8447601	9.99065
24	69966,33	97927,24	139963,36	9.8448891	9.99090
25	69987,11	97984,24	140003,25	9.8450181	9.99115
26	70007,89	98041,27	140043,17	9.8451470	9.99140
27	70028,66	98098,33	140083,13	9.8452758	9.99166
28	70049,42	98155,43	140123,12	9.8454045	9.99191
29	70070,18	98212,56	140163,15	9.8455332	9.99216
30	70090,93	98269,73	140203,21	9.8456618	9.99241

45 Grad.

Minut.	Sinus	Tang.	Secans	Log. Sin.	Log. Tang
60	71933,98	103553,03	143955,65	9,8569341	10,0151628
59	71913,77	103492,77	143912,31	9,8568121	10,0149100
58	71893,55	103432,54	143869,00	9,8566900	10,0146572
57	71873,33	103372,35	143825,74	9,8565678	10,0144044
56	71853,10	103312,20	143782,51	9,8564455	10,0141516
55	71832,87	103252,08	143739,32	9,8563232	10,0138988
54	71812,63	103191,99	143696,16	9,8562008	10,0136460
53	71792,38	103131,95	143653,05	9,8560784	10,0133932
52	71772,13	103071,94	143609,97	9,8559558	10,0131404
1	71751,87	103011,96	143566,93	9,8558332	10,0128877
0	71731,61	102952,03	143523,93	9,8557106	10,0126349
9	71711,34	102892,12	143480,97	9,8555878	10,0123821
8	71691,06	102832,26	143438,05	9,8554650	10,0121294
7	71670,78	102772,43	143395,16	9,8553421	10,0118766
6	71650,49	102712,63	143352,31	9,8552192	10,0116239
5	71630,19	102652,87	143309,50	9,8550961	10,0113711
4	71609,89	102593,15	143266,72	9,8549730	10,0111184
3	71589,58	102533,46	143223,99	9,8548499	10,0108656
2	71569,27	102473,81	143181,29	9,8547266	10,0106129
1	71548,95	102414,19	143138,63	9,8546033	10,0103601
0	71528,63	102354,61	143096,00	9,8544799	10,0101074
9	71508,30	102295,06	143053,42	9,8543564	10,0098547
8	71487,96	102235,55	143010,87	9,8542329	10,0096019
	71467,62	102176,08	142968,36	9,8541093	10,0093492
	71447,27	102116,64	142925,88	9,8539856	10,0090965
	71426,91	102057,23	142883,44	9,8538619	10,0088438
	71406,55	101997,86	142841,04	9,8537381	10,0085911
	71386,18	101938,53	142798,68	9,8536142	10,0083384
	71365,81	101879,23	142756,36	9,8534902	10,0080857
	71345,43	101819,97	142714,07	9,8533662	10,0078330
	71325,05	101760,74	142671,82	9,8532421	10,0075803

44 Grad.

Minut.	Sinus	Tang.	Secant.	Log. Sin.	Log. Tan
30	70090,93	98269,73	140203.21	9.8456618	9.992419
31	70111,67	98326,92	140243.30	9.8457903	9.992672
32	70132,41	98384,15	140283.43	9.8459188	9.992925
33	70153,14	98441,41	140323.60	9.8460471	9.993177
34	70173,87	98498,71	140363.80	9.8461754	9.993430
35	70194,59	98556,03	140404.03	9.8463036	9.993683
36	70215,30	98613,39	140444,30	9.8464318	9.993935
37	70236,01	98670,79	140484.60	9.8465599	9.994188
38	70256,71	98728,21	140524.94	9.8466879	9.994441
39	70277,41	98785,67	140565.32	9.8468158	9.994694
40	70298,10	98843,16	140605.73	9.8469436	9.99494
41	70318,79	98900,69	140646.17	9.8470714	9.99519
42	70339,47	98958,25	140686,65	9.8471991	9.99545
43	70360,14	99015,84	140727.17	9.8473267	9.99570
44	70380,81	99073,46	140767.72	9.8474543	9.99595
45	70401,47	99131,12	140808.31	9.8475817	9.99621
46	70422,13	99188,81	140848.93	9.8477091	9.99646
47	70442,78	99246,54	140889.58	9.8478365	9.99671
48	70463,42	99304,29	140930.28	9.8479637	9.99696
49	70484,06	99362,08	140971.00	9.8480909	9.99722
50	70504,69	99419,91	141011,77	9.8482180	9.99747
51	70525,32	99477,77	141052,56	9.8483450	9.99772
52	70545,94	99535,66	141093.40	9.8484720	9.99797
53	70566,55	99593,58	141134.27	9.8485989	9.99823
54	70587,16	99651,54	141175.17	9.8487257	9.99848
55	70607,76	99709,53	141216.11	9.8488524	9.99873
56	70628,35	99767,56	141257.09	9.8489791	9.99898
57	70648,94	99825,62	141298.10	9.8491057	9.99924
58	70669,53	99883,71	141339.15	9.8492322	9.99949
59	70690,11	99941,84	141380,24	9.8493586	9.99974
60	70710,68	100000,00	141421.36	9.8494850	10,0000

45 Grad.

Minut	Sinus	Tang.	Secant.	Log. Sin.	Log. Tang
0	71325,05	101760,74	142671,82	9,8532421	10,0075803
9	71304,66	101701,55	142629,61	9,8531179	10,0073276
8	71284,26	101642,39	142587,43	9,8529936	10,0070749
7	71263,85	101583,26	142545,29	9,8528693	10,0068222
6	71243,44	101524,17	142503,19	9,8527449	10,0065695
5	71223,02	101465,12	142461,12	9,8526204	10,0063168
4	71202,60	101406,10	142419,09	9,8524959	10,0060641
3	71182,17	101347,12	142377,10	9,8523713	10,0058114
2	71161,74	101288,17	142335,14	9,8522466	10,0055587
1	71141,30	101229,25	142293,23	9,8521218	10,0053060
	71120,86	101170,37	142251,34	9,8519970	10,0050534
	71100,41	101111,53	142209,50	9,8518721	10,0048007
	71079,95	101052,72	142167,69	9,8517471	10,0045480
	71059,48	100993,94	142125,92	9,8516220	10,0042953
	71039,01	100935,20	142084,18	9,8514969	10,0040427
	71018,54	100876,49	142042,48	9,8513717	10,0037900
	70998,06	100817,82	142000,82	9,8512465	10,0035373
	70977,57	100759,18	141959,19	9,8511211	10,0032846
	70957,07	100700,58	141917.61	9,8509957	10,0030320
	70936.57	100642,01	141876,05	9,8508702	10,0027793
	70916,07	100583,47	141834,54	9,8507446	10,0025266
	70895,56	100524,97	141793,05	9,8506190	10,0022740
	70875,04	100466,51	141751,61	9,8504933	10,0020213
	70854,51	100408,07	141710,20	9,8503675	10,0017686
	70833,98	100349,68	141668,83	9,8502417	10,0015160
	70813,45	100291,31	141627,49	9,8501157	10,0012633
	70792,91	100232,98	141586,19	9,8499897	10,0010107
	70772,36	100174,69	141544,93	9,8498637	10,0007580
	70751,80	100116,42	141503,70	9,8497375	10,0005053
	70731,24	100058,19	141462,51	9,8496113	10,0002527
	70710,68	100000,00	141421,36	9,8494850	10,0000000

Mr. BRIGGS Table of

LOGARITHMES,

For the numbers from
an Vnite to 10000.

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
1	0,0000000	34	1,5314789	67	1,8260748
2	0,3010300	35	1,5440680	68	1,8325089
3	0,4771212	36	1,5563025	69	1,8388491
4	0.6020600	37	1,5682017	70	1,8450980
5	0,6989700	38	1,5797836	71	1,8512583
6	0,7781512	39	1,5910646	72	1,8573325
7	0,8450980	40	1,6020600	73	1,8633229
8	0,9030900	41	1,6127839	74	1,8692317
9	0,9542425	42	1,6232493	75	1,8750613
10	1,0000000	43	1,6334685	76	1,8808136
11	1,0413927	44	1,6434527	77	1,8864907
12	1,0791812	45	1,6532125	78	1,8920946
13	1,1139433	46	1,6627578	79	1,8976271
14	1,1461280	47	1,6720979	80	1,9030900
15	1,1760913	48	1,6812412	81	1,9084850
16	1,2041200	49	1,6901961	82	1,9138138
17	1,2304489	50	1,6989700	83	1,9190781
18	1,2552725	51	1,7075702	84	1,9242793
19	1,2787536	52	1,7160033	85	1,9294189
20	1,3010300	53	1,7242759	86	1,9344984
21	1,3222193	54	1,7323938	87	1,9395192
22	1,3424227	55	1,7403627	88	1,9444827
23	1,3617278	56	1,7481880	89	1,9493900
24	1,3802112	57	1,7558748	90	1,9542425
25	1,3979400	58	1,7634280	91	1,9590414
26	1,4149733	59	1.7708520	92	1,9637878
27	1,4313638	60	1,7781512	93	1,9684829
28	1,4471580	61	1,7853298	94	1,9731278
29	1,4623980	62	1,7923917	95	1,9777236
30	1,4771212	63	1.7993405	96	1,9822712
31	1,4913617	64	1,8061800	97	1,9867717
32	1,5051500	65	1,8129133	98	1,9912261
33	1,5185139	66	1,8195439	99	1,9956352
34	1,5314789	67	1,8260748	100	2,0000000

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
101	2,0043214	134	2,1271048	167	2,2227165
102	2,0086002	135	2,1303338	168	2,2253093
103	2,0128372	136	2,1335389	169	2,2278867
104	2,0170333	137	2,1367206	170	2,2304489
105	2,0211893	138	2,1398791	171	2,2329961
106	2,0253059	139	2,1430148	172	2,2355284
107	2,0293838	140	2,1461280	173	2,2380461
108	2,0334238	141	2,1492191	174	2,2405492
109	2,0374265	142	2,1522883	175	2,2430380
110	2,0413927	143	2,1553360	176	2,2455127
111	2,0453230	144	2,1583625	177	2,2479733
112	2,0492180	145	2,1613680	178	2,2504200
113	2,0530784	146	2,1643528	179	2,2528530
114	2,0569048	147	2,1673173	180	2,2552725
115	2,0606978	148	2,1702617	181	2,2576786
116	2,0644580	149	2,1731863	182	2,2600714
117	2,0681859	150	2,1760913	183	2,2624511
118	2,0718820	151	2,1789769	184	2,2648178
119	2.0755470	152	2,1818436	185	2,2671717
120	2,0791812	153	2,1846914	186	2,2695129
121	2,0827854	154	2,1875207	187	2,2718416
122	2,0863598	155	2,1903317	188	2,2741578
123	2,0899051	156	2,1931246	189	2,2764618
124	2,0934217	157	2,1958996	190	2,2787536
125	2,0969100	158	2.1986571	191	2,2810334
126	2,1003705	159	2,2013971	192	2,2833012
127	2,1038037	160	2,2041200	193	2,2855573
128	2,1072100	161	2,2068259	194	2,2878017
129	2,1105897	162	2,2095150	195	2,2900346
130	2,1139433	163	2,2121876	196	2,2922561
131	2,1172713	164	2.2148438	197	2,2944662
132	2,1205739	165	2,2174839	198	2,2966652
133	2,1238516	166	2,2201081	199	2,2988531
134	2,1271048	167	2,2227165	200	2,3010300

N.	Logarith	N.	Logarith	N.	Logarith
201	2,3031961	234	2,3692159	267	2,4265113
202	2,3053514	235	2,3710679	268	2,4281348
203	2,3074960	236	2,3729120	269	2,4297523
204	2,3096302	237	2,3747483	270	2,4313638
205	2,3117539	238	2,3765770	271	2.4329693
206	2.3138672	239	2,3783979	272	2,4345689
207	2,3159703	240	2,3802112	273	2,4361626
208	2,3180633	241	2,3820170	274	2,4377506
209	2,3201463	242	2,3838154	275	2,4393327
210	2,3222193	243	2,3856063	276	2,4409091
211	2,3242824	244	2,3873898	277	2,4424798
212	2,3263359	245	2,3891661	278	2,4440448
213	2,3283796	246	2,3909351	279	2,4456042
214	2,3304138	247	2,3926969	280	2,4471580
215	2,3324385	248	2,3944517	281	2,4487063
216	2,3344537	249	2,3961993	282	2,4502491
217	2,3364597	250	2,3979400	283	2,4517864
218	2,3384565	251	2,3996737	284	2,4533183
219	2,3404441	252	2,4014005	285	2,4548449
220	2,3424227	253	2,4031205	286	2,4563660
221	2,3443923	254	2,4048337	287	2,4578819
222	2,3463530	255	2,4065402	288	2,4593925
223	2,3483049	256	2,4082400	289	2,4608978
224	2,3502480	257	2,4099331	290	2,4623980
225	2,3521825	258	2,4116197	291	2,4638930
226	2,3541084	259	2,4132998	292	2,4653828
227	2,3560259	260	2,4149733	293	2,4668676
228	2,3579348	261	2,4166405	294	2,4683473
229	2,3598355	262	2,4183013	295	2,4698220
230	2,3617278	263	2,4199557	296	2,4712917
231	2,3636120	264	2,4216039	297	2,4727564
232	2,3654880	265	2,4232459	298	2,4742163
233	2,3673559	266	2,4248816	299	2,4756712
234	2,3692159	267	2,4265113	300	2,4771212

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
301	2,4785665	334	2,5237465	367	2,5646661
302	2,4800069	335	2,5250448	368	2,5658478
303	2,4814426	336	2,5263393	369	2,5670264
304	2,4828736	337	2,5276299	370	2,5682017
305	2.4842998	338	2,5289167	371	2,5693739
306	2,4857214	339	2.5301997	372	2,5705429
307	2,4871384	340	2,5314789	373	2,5717088
308	2,4885507	341	2,5327544	374	2,5728716
309	2,4899585	342	2,5340261	375	2,5740313
310	2,4913617	343	2,5352941	376	2,5751878
311	2,4927604	344	2,5365584	377	2,5763413
312	2,4941546	345	2,5378191	378	2,5774918
313	2,4955443	346	2,5390761	379	2,5786392
314	2,4969296	347	2,5403295	380	2,5797836
315	2,4983105	348	2,5415792	381	2,5809250
316	2,4996871	349	2,5428254	382	2,5820634
317	2,5010593	350	2,5440680	383	2,5831988
318	2,5024271	351	2,5453071	384	2,5843312
319	2,5037907	352	2,5465427	385	2,5854607
320	2,5051500	353	2,5477747	386	2,5865873
321	2,5065050	354	2,5490033	387	2,5877110
322	2,5078559	355	2,5502283	388	2,5888317
323	2,5092025	356	2,5514500	389	2,5899496
324	2,5105450	357	2,5526682	390	2,5910646
325	2,5118834	358	2,5538830	391	2,5921768
326	2,5132176	359	2,5550944	392	2,5932861
327	2,5145477	360	2,5563025	393	2,5943925
328	2,5158738	361	2,5575072	394	2,5954962
329	2,5171959	362	2,5587086	395	2,5965971
330	2,5185139	363	2,5599066	396	2,5976952
331	2,5198280	364	2,5611014	397	2,5987905
332	2,5211381	365	2,5622929	398	2,5998831
333	2,5224442	366	2,5634811	399	2,6009729
334	2,5237465	367	2,5646661	400	2,6020600

N.	Logarith	N.	Logarith	N.	Logarith
401	2,6031444	434	2,6374897	467	2,6693169
402	2,6042260	435	2,6384893	468	2,6702458
403	2,6053050	436	2,6394865	469	2,6711728
404	2,6063814	437	2,6404814	470	2,6720979
405	2.6074550	438	2,6414741	471	2.6730209
406	2,6085260	439	2,6424645	472	2,6739420
407	2,6095944	440	2,6434527	473	2,6748611
408	2,6106602	441	2,6444386	474	2,6757783
409	2,6117233	442	2,6454223	475	2,6766936
410	2,6127839	443	2,6464037	476	2,6776069
411	2,6138418	444	2,6473830	477	2,6785184
412	2,6148972	445	2,6483600	478	2,6794279
413	2,6159500	446	2,6493349	479	2,6803355
414	2,6170003	447	2,6503075	480	2,6812412
415	2,6180481	448	2,6512780	481	2,6821451
416	2,6190933	449	2,6522463	482	2,6830470
417	2,6201360	450	2,6532125	483	2,6839471
418	2,6211763	451	2,6541765	484	2,6848454
419	2,6222140	452	2,6551384	485	2,6857417
420	2,6232493	453	2,6560982	486	2,6866363
421	2,6242821	454	2,6570558	487	2.6875290
422	2,6253124	455	2,6580114	488	2,6884198
423	2,6263404	456	2,6589648	489	2,6893089
424	2.6273659	457	2,6599162	490	2,6901961
425	2,6283889	458	2,6608655	491	2,6910815
426	2,6294096	459	2,6618127	492	2,6919651
427	2,6304279	460	2,6627578	493	2,6928469
428	2,6314438	461	2,6637009	494	2,6937269
429	2,6324573	462	2,6646420	495	2,6946052
430	2,6334685	463	2,6655810	496	2,6954817
431	2,6344773	464	2,6665180	497	2,6963564
432	2,6354837	465	2,6674529	498	2,6972293
433	2,6364879	466	2,6683859	499	2,6981005
434	2,6374897	467	2,6693169	500	2,6989700

N.	Logarith	N.	Logarith	N.	Logarith
501	2,6998377	534	2,7275413	567	2,7535831
502	2,7007037	535	2,7283538	568	2,7543483
503	2,7015680	536	2,7291648	569	2,7551123
504	2,7024305	537	2,7299743	570	2,7558748
505	2,7032914	538	2,7307823	571	2,7566361
506	2,7041505	539	2.7315888	572	2,7573960
507	2,7050080	540	2,7323938	573	2,7581546
508	2,7058637	541	2,7331973	574	2,7589119
509	2,7067178	542	2,7339993	575	2,7596678
510	2,7075702	543	2,7347998	576	2,7604225
511	2,7084209	544	2,7355989	577	2,7611758
512	2,7092700	545	2,7363965	578	2.7619278
513	2,7101174	546	2,7371926	579	2,7626786
514	2,7109631	547	2,7379873	580	2,7634280
515	2,7118072	548	2,7387806	581	2,7641761
516	2,7126497	549	2,7395723	582	2,7649230
517	2,7134905	550	2,7403627	583	2,7656685
518	2,7143298	551	2,7411516	584	2,7664128
519	2,7151674	552	2,7419391	585	2,7671559
520	2,7160033	553	2,7427251	586	2,7678976
521	2.7168377	554	2,7435098	587	2,7686381
522	2,7176705	555	2,7442930	588	2,7693773
523	2,7185017	556	2,7450748	589	2,7701153
524	2,7193313	557	2,7458552	590	2,7708520
525	2,7201593	558	2,7466342	591	2,7715875
526	2,7209857	559	2,7474118	592	2,7723217
527	2,7218106	560	2,7481880	593	2,7730547
528	2,7226339	561	2,7489629	594	2,7737864
529	2,7234557	562	2,7497363	595	2,7745170
530	2,7242759	563	2,7505084	596	2,7752463
531	2,7250945	564	2,7512791	597	2.7759743
532	2,7259116	565	2,7520484	598	2,7767012
533	2,7267272	566	2,7528164	599	2,7774268
534	2,7275413	567	2,7535831	600	2,7781512

N.	*Logarith*	N.	*Logarith*	N.	*Logarith*
601	2,7788745	634	2,8020893	667	2,8241258
602	2,7795965	635	2,8027737	668	2,8247765
603	2,7803173	636	2,8034571	669	2,8254261
604	2,7810369	637	2,8041394	670	2,8260748
605	2,7817554	638	2,8048207	671	2,8267225
606	2,7824726	639	2,8055009	672	2,8273693
607	2,7831887	640	2,8061800	673	2,8280151
608	2,7839036	641	2,8068580	674	2,8286599
609	2,7846173	642	2,8075350	675	2,8293038
610	2,7853298	643	2,8082110	676	2,8299467
611	2,7860412	644	2,8088859	677	2,8305887
612	2,7867514	645	2,8095597	678	2,8312297
613	2,7874605	646	2,8102325	679	2,8318698
614	2,7881684	647	2,8109043	680	2,8325089
615	2,7888751	648	2,8115750	681	2,8331471
616	2,7895807	649	2,8122447	682	2,8337844
617	2,7902852	650	2,8129134	683	2,8344207
618	2,7909885	651	2,8135810	684	2,8350561
619	2.7916906	652	2,8142476	685	2,8356906
620	2,7923917	653	2,8149132	686	2,8363241
621	2.7930916	654	2,8155777	687	2,8369567
622	2,7937904	655	2,8162413	688	2.8375884
623	2,7944880	656	2.8169038	689	2,8382192
624	2,7951846	657	2,8175654	690	2,8388491
625	2,7958800	658	2,8182259	691	2,8394780
626	2,7965744	659	2,8188854	692	2,8401061
627	2,7972675	660	2,8195439	693	2,8407332
628	2,7979596	661	2,8202015	694	2,8413595
629	2,7986506	662	2,8208580	695	2,8419848
630	2,7993405	663	2,8215135	696	2,8426092
631	2,8000294	664	2.8221681	697	2,8432328
632	2,8007171	665	2,8228216	698	2,8438554
633	2,8014037	666	2,8234742	699	2.8444772
634	2,8020893	667	2.8241258	700	2,8450980

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
701	2,8457180	734	2,8656961	767	2,8847954
702	2,8463371	735	2,8662873	768	2,8853612
703	2,8469553	736	2,8668778	769	2,8859263
704	2,8475727	737	2,8674675	770	2,8864907
705	2,8481891	738	2,8680564	771	2,8870544
706	2,8488047	739	2,8686444	772	2,8876173
707	2,8494194	740	2,8692317	773	2,8881795
708	2,8500333	741	2,8698182	774	2,8887410
709	2,8506462	742	2,8704039	775	2,8893017
710	2,8512583	743	2,8709888	776	2,8898617
711	2,8518696	744	2,8715729	777	2,8904210
712	2,8524800	745	2,8721563	778	2,8909796
713	2.8530895	746	2,8727388	779	2,8915375
714	2,8536982	747	2,8733206	780	2,8920946
715	2,8543060	748	2,8739016	781	2,8926510
716	2,8549130	749	2,8744818	782	2,8932067
717	2.8555191	750	2,8750613	783	2,8937618
718	2,8561244	751	2,8756399	784	2,8943161
719	2,8567289	752	2,8762178	785	2,8948696
720	2,8573325	753	2,8767950	786	2,8954225
721	2,8579353	754	2,8773713	787	2,8959747
722	2,8585372	755	2,8779469	788	2,8965262
723	2,8591383	756	2.8785218	789	2,8970770
724	2,8597386	757	2,8790959	790	2,8976271
725	2,8603380	758	2,8796692	791	2,8981765
726	2,8609366	759	2,8802418	792	2,8987252
727	2,8615344	760	2,8808136	793	2,8992732
728	2,8621314	761	2,8813847	794	2,8998205
729	2.8627275	762	2,8819550	795	2,9003671
730	2,8633229	763	2,8825245	796	2,9009131
731	2,8639174	764	2.8830934	797	2,9014583
732	2,8645111	765	2,8836614	798	2,9020029
733	2,8651040	766	2,8842288	799	2,9025468
734	2,8656961	767	2.8847954	800	2.9030900

N.	Logarith	N.	Logarith	N.	Logarith
801	2,9036325	834	2,9211660	867	2,9380191
802	2,9041744	835	2,9216865	868	2,9385197
803	2,9047155	836	2,9222063	869	2,9390198
804	2,9052560	837	2,9227254	870	2,9395192
805	2,9057959	838	2,9232440	871	2,9400181
806	2,9063350	839	2,9237620	872	2,9405165
807	2,9068735	840	2,9242793	873	2,9410142
808	2,9074114	841	2,9247960	874	2,9415114
809	2,9079485	842	2,9253121	875	2,9420080
810	2,9084850	843	2,9258276	876	2,9425041
811	2,9090208	844	2,9263424	877	2,9429996
812	2,9095560	845	2,9268567	878	2,9434945
813	2,9100905	846	2,9273704	879	2,9439889
814	2,9106244	847	2,9278834	880	2,9444827
815	2,9111576	848	2,9283958	881	2,9449759
816	2,9116901	849	2,9289077	882	2,9454686
817	2,9122220	850	2,9294189	883	2,9459607
818	2,9127533	851	2,9299296	884	2,9464523
819	2,9132839	852	2,9304396	885	2,9469433
820	2,9138138	853	2,9309490	886	2,9474337
821	2,9143431	854	2,9314579	887	2.9479236
822	2,9148718	855	2,9319661	888	2,9484130
823	2,9153998	856	2,9324738	889	2,9489018
824	2,9159272	857	2,9329808	890	2,9493900
825	2,9164539	858	2,9334873	891	2.9498777
826	2,9169800	859	2,9339932	892	2,9503648
827	2,9175055	860	2,9344984	893	2,9508514
828	2,9180303	861	2,9350031	894	2,9513375
829	2,9185545	862	2,9355073	895	2,9518230
830	2,9190781	863	2,9360108	896	2,9523080
831	2,9196010	864	2,9365137	897	2,9527924
832	2,9201233	865	2,9370161	898	2.9532763
833	2,9206450	866	2,9375179	899	2,9537597
834	2,9211660	867	2,9380191	900	2,9542425

N.	Logarith	N.	Logarith	N.	Logarit
901	2,9547248	934	2,9703469	967	2,985426
902	2,9552065	935	2,9708116	968	2,985875
903	2,9556877	936	2,9712758	969	2,986323
904	2.9561684	937	2,9717396	970	2,986771
905	2,9566486	938	2,9722028	971	2,987219
906	2,9571282	939	2,9726656	972	2,987666
907	2,9576073	940	2,9731278	973	2,988112
908	2,9580858	941	2,9735896	974	2,988558
909	2,9585639	942	2,9740509	975	2,989004
910	2,9590414	943	2,9745117	976	2,989449
911	2,9595184	944	2,9749720	977	2,989894
912	2,9599948	945	2,9754318	978	2,990338
913	2,9604708	946	2,9758911	979	2,990782
914	2,9609462	947	2,9763500	980	2,9912261
915	2,9614211	948	2,9768083	981	2,991669
916	2,9618955	949	2,9772662	982	2,9921115
917	2,9623693	950	2,9777236	983	2,9925535
918	2,9628427	951	2,9781805	984	2,9929951
919	2,9633155	952	2,9786369	985	2,9934362
920	2,9637878	953	2,9790929	986	2,9938769
921	2,9642596	954	2,9795484	987	2,9943171
922	2,9647309	955	2,9800034	988	2,9947569
923	2,9652017	956	2,9804579	989	2,9951963
924	2,9656720	957	2,9809119	990	2,9956352
925	2,9661417	958	2,9813655	991	2,9960736
926	2,9666110	959	2,9818186	992	2,9965117
927	2,9670797	960	2,9822712	993	2,9969492
928	2,9675480	961	2,9827234	994	2,9973864
929	2,9680157	962	2,9831751	995	2.9978231
930	2,9684829	963	2,9836263	996	2,9982593
931	2,9689497	964	2,9840770	997	2,9986951
932	2,9694159	965	2,9845273	998	2,9991305
933	2,9698816	966	2,9849771	999	2.9995655
934	2,9703469	967	2,9854265	1000	3,0000000

N.	Logarith	N.	Logarith	N.	Logarith
1001	3,0004341	1034	3,0145205	1067	3,0281644
1002	3,0008677	1035	3,0149403	1068	3,0285712
1003	3,0013009	1036	3,0153597	1069	3,0289777
1004	3,0017337	1037	3,0157787	1070	3,0293838
1005	3,0021661	1038	3,0161973	1071	3,0297895
1006	3,0025980	1039	3,0166155	1072	3,0301948
1007	3,0030295	1040	3,0170333	1073	3,0305997
1008	3,0034605	1041	3,0174507	1074	3,0310043
1009	3,0038912	1042	3,0178677	1075	3,0314085
1010	3,0043214	1043	3,0182843	1076	3,0318123
1011	3,0047511	1044	3,0187005	1077	3,0322157
1012	3,0051805	1045	3,0191163	1078	3,0326188
1013	3,0056094	1046	3,0195317	1079	3,0330214
1014	3,0060379	1047	3,0199467	1080	3,0334237
1015	3,0064660	1048	3,0203613	1081	3,0338257
1016	3,0068937	1049	3,0207755	1082	3,0342273
1017	3,0073209	1050	3,0211893	1083	3,0346284
1018	3,0077478	1051	3,0216027	1084	3,0350293
1019	3,0081742	1052	3,0220157	1085	3,0354297
1020	3,0086002	1053	3,0224284	1086	3,0358298
1021	3,0090257	1054	3,0228406	1087	3,0362295
1022	3,0094509	1055	3,0232524	1088	3,0366289
1023	3,0098756	1056	3,0236639	1089	3,0370279
1024	3,0102999	1057	3,0240750	1090	3,0374265
1025	3,0107239	1058	3,0244857	1091	3,0378247
1026	3,0111474	1059	3,0248960	1092	3,0382226
1027	3,0115704	1060	3,0253059	1093	3,0386201
1028	3,0119931	1061	3,0257154	1094	3,0390173
1029	3,0124154	1062	3,0261245	1095	3,0394141
1030	3,0128372	1063	3,0265333	1096	3,0398105
1031	3,0132587	1064	3,0269416	1097	3,0402066
1032	3,0136797	1065	3,0273496	1098	3,0406023
1033	3,0141003	1066	3,0277572	1099	3,0409977
1034	3,0145205	1067	3,0281644	1100	3,0413927

N.	Logarith	N.	Logarith	N.	Logarith
1101	3,0417873	1134	3,0546130	1167	3,0670708
1102	3,0421816	1135	3,0549958	1168	3,0674428
1103	3,0425755	1136	3,0553783	1169	3,0678145
1104	3,0429691	1137	3,0557604	1170	3,0681859
1105	3,0433623	1138	3,0561423	1171	3,0685569
1106	3,0437551	1139	3,0565237	1172	3,0689276
1107	3,0441476	1140	3,0569048	1173	3,0692980
1108	3,0445398	1141	3,0572856	1174	3,0696681
1109	3,0449315	1142	3,0576661	1175	3,0700379
1110	3,0453230	1143	3,0580462	1176	3,0704073
1111	3,0457140	1144	3,0584260	1177	3,0707765
1112	3,0461048	1145	3,0588055	1178	3,0711453
1113	3,0464952	1146	3,0591846	1179	3,0715138
1114	3,0468852	1147	3,0595634	1180	3,0718820
1115	3,0472749	1148	3,0599419	1181	3,0722499
1116	3,0476642	1149	3,0603200	1182	3,0726175
1117	3,0480532	1150	3,0606978	1183	3,0729847
1118	3,0484418	1151	3,0610753	1184	3,0733517
1119	3,0488301	1152	3,0614525	1185	3,0737183
1120	3,0492180	1153	3,0618293	1186	3,0740847
1121	3,0496056	1154	3,0622058	1187	3,0744507
1122	3,0499928	1155	3,0625820	1188	3,0748164
1123	3,0503797	1156	3,0629578	1189	3,0751818
1124	3,0507663	1157	3,0633334	1190	3,0755470
1125	3,0511525	1158	3,0637085	1191	3,0759118
1126	3,0515384	1159	3,0640834	1192	3,0762762
1127	3,0519239	1160	3,0644580	1193	3,0766404
1128	3,0523091	1161	3,0648322	1194	3,0770043
1129	3,0526939	1162	3,0652061	1195	3,0773679
1130	3,0530784	1163	3,0655797	1196	3,0777312
1131	3,0534626	1164	3,0659530	1197	3,0780941
1132	3,0538464	1165	3,0663259	1198	3,0784568
1133	3,0542299	1166	3,0666985	1199	3,0788192
1134	3,0546130	1167	3,0670708	1200	3,0791812

N.	Logarith	N.	Logarith	N.	Logarith
1201	3,0795430	1234	3,0913151	1267	3,1027766
1202	3,0799045	1235	3,0916669	1268	3,1031192
1203	3,0802656	1236	3,0920185	1269	3,1034616
1204	3,0806265	1237	3,0923697	1270	3,1038037
1205	3,0809870	1238	3,0927206	1271	3,1041455
1206	3,0813473	1239	3,0930713	1272	3,1044871
1207	3,0817073	1240	3,0934217	1273	3,1048284
1208	3,0820669	1241	3,0937718	1274	3,1051694
1209	3,0824263	1242	3,0941216	1275	3,1055102
1210	3,0827854	1243	3.0944711	1276	3,1058507
1211	3,0831441	1244	3,0948204	1277	3.1061909
1212	3,0835026	1245	3,0951693	1278	3,1065308
1213	3,0838608	1246	3,0955180	1279	3,1068705
1214	3,0842187	1247	3,0958664	1280	3,1072100
1215	3,0845763	1248	3,0962146	1281	3,1075491
1216	3,0849336	1249	3,0965624	1282	3,1078880
1217	3,0852906	1250	3,0969100	1283	3,1082266
1218	3,0856473	1251	3,0972573	1284	3,1085650
1219	3.0860037	1252	3,0976043	1285	3,1089031
1220	3.0863598	1253	3,0979511	1286	3,1092410
1221	3,0867156	1254	3,0982975	1287	3,1095785
1222	3,0870712	1255	3,0986437	1288	3,1099159
1223	3,0874264	1256	3,0989895	1289	3,1102529
1224	3,0877814	1257	3,0993353	1290	3,1105897
1225	3,0881361	1258	3,0996806	1291	3.1109262
1226	3,0884905	1259	3,1000257	1292	3,1112625
1227	3,0888446	1260	3,1003705	1293	3,1115985
1228	3.0891984	1261	3,1007151	1294	3,1119343
1229	3,0895519	1262	3,1010593	1295	3,1122698
1230	3.0899051	1263	3,1014033	1296	3,1126050
1231	3,0902580	1264	3,1017471	1297	3.1129400
1232	3,0906107	1265	3,1020905	1298	3,1132747
1233	3,0909631	1266	3,1024337	1299	3,1136091
1234	3.0913151	1267	3,1027766	1300	3,1139433

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
1301	3,1142773	1334	3,1251558	1367	3,1357685
1302	3,1146110	1335	3,1254813	1368	3,1360861
1303	3,1149444	1336	3,1258064	1369	3,1364034
1304	3,1152776	1337	3,1261314	1370	3,136720
1305	3,1156105	1338	3,1264561	1371	3,1370374
1306	3,1159432	1339	3,1267806	1372	3,1373541
1307	3,1162756	1340	3,1271048	1373	3,137670
1308	3,1166077	1341	3,1274288	1374	3,1379867
1309	3,1169396	1342	3,1277525	1375	3,1383027
1310	3,1172713	1343	3,1280760	1376	3,1386184
1311	3,1176027	1344	3,1283993	1377	3.1389339
1312	3,1179338	1345	3,1287223	1378	3,139249
1313	3,1182647	1346	3,1290450	1379	3,139564
1314	3,1185954	1347	3,1293676	1380	3,139879
1315	3,1189257	1348	3,1296899	1381	3,1401937
1316	3,1192559	1349	3,1300119	1382	3,140508
1317	3,1195858	1350	3,1303338	1383	3,140822
1318	3,1199154	1351	3,1306553	1384	3,141136
1319	3.1202448	1352	3,1309767	1385	3,1414498
1320	3,1205739	1353	3,1312978	1386	3,141763
1321	3,1209028	1354	3,1316187	1387	3,142076
1322	3,1212314	1355	3,1319393	1388	3,142389
1323	3,1215598	1356	3,1322597	1389	3,142702
1324	3,1218880	1357	3,1325798	1390	3,1430148
1325	3,1222159	1358	3,1328998	1391	3.143327
1326	3,1225435	1359	3,1332195	1392	3,143639
1327	3,1228709	1360	3,1335389	1393	3,143951
1328	3.1231981	1361	3,1338581	1394	3,1442628
1329	3,1235250	1362	3,1341771	1395	3,144574
1330	3.1238516	1363	3,1344958	1396	3,144885
1331	3,1241780	1364	3,1348144	1397	3,1451964
1332	3.1245042	1365	3,1351326	1398	3,145507
1333	3.1248301	1366	3,1354507	1399	3,1458177
1334	3.1251558	1367	3,1357685	1400	3,146128

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
1401	3,1464381	1434	3,1565491	1467	3.1664301
1402	3,1467480	1435	3,1568519	1468	3,1667260
1403	3,1470577	1436	3,1571544	1469	3,1670218
1404	3,1473671	1437	3.1574568	1470	3,1673173
1405	3,1476763	1438	3.1577589	1471	3,1676127
1406	3,1479853	1439	3,1580608	1472	3,1679078
1407	3,1482941	1440	3,1583625	1473	3.1682027
1408	3,1486026	1441	3,1586640	1474	3,1684975
1409	3,1489110	1442	3,1589653	1475	3,1687920
1410	3,1492191	1443	3,1592663	1476	3,1690863
1411	3.1495270	1444	3,1595672	1477	3,1693805
1412	3,1498347	1445	3,1598678	1478	3,1696744
1413	3.1501422	1446	3,1601683	1479	3,1699682
1414	3,1504494	1447	3,1604685	1480	3,1702617
1415	3,1507564	1448	3,1607686	1481	3,1705550
1416	3,1510632	1449	3,1610684	1482	3,1708482
1417	3,1513698	1450	3,1613680	1483	3,1711411
1418	3,1516762	1451	3,1616674	1484	3,1714339
1419	3,1519824	1452	3,1619666	1485	3,1717264
1420	3,1522883	1453	3,1622656	1486	3,1720188
1421	3,1525941	1454	3,1625644	1487	3,1723110
1422	3,1528996	1455	3,1628630	1488	3,1726029
1423	3,1532049	1456	3,1631614	1489	3,1728947
424	3,1535100	1457	3,1634595	1490	3,1731863
425	3,1538149	1458	3,1637575	1491	3,1734776
426	3,1541195	1459	3.1640553	1492	3,1737688
427	3,1544240	1460	3,1643528	1493	3,1740598
428	3,1547282	1461	3,1646502	1494	3,1743506
429	3,1550322	1462	3,1649474	1495	3,1746412
430	3,1553360	1463	3,1652443	1496	3,1749316
431	3,1556396	1464	3,1655411	1497	3,1752218
432	3,1559430	1465	3,1658376	1498	3,1755118
433	3,1562462	1466	3.1661340	1499	3,1758016
434	3,1565491	1467	3,1664301	1500	3,1760913

N.	Logarith	N.	Logarith	N.	Logarith
1501	3,1763807	1534	3,1858253	1567	3,195069
1502	3,1766699	1535	3,1861084	1568	3,195346
1503	3,1769590	1536	3,1863912	1569	3,195622
1504	3,1772478	1537	3,1866739	1570	3.195899
1505	3,1775365	1538	3,1869563	1571	3.196176
1506	3,1778250	1539	3,1872386	1572	3,196452
1507	3,1781132	1540	3,1875207	1573	3,196728
1508	3,1784013	1541	3,1878026	1574	3,197004
1509	3,1786892	1542	3,1880844	1575	3,197280
1510	3,1789769	1543	3,1883659	1576	3.197556
1511	3,1792645	1544	3,1886473	1577	3,197831
1512	3,1795518	1545	3,1889285	1578	3,198107
1513	3,1798389	1546	3.1892095	1579	3,1983821
1514	3,1801259	1547	3,1894903	1580	3,1986571
1515	3,1804126	1548	3,1897709	1581	3,1989319
1516	3,1806992	1549	3,1900514	1582	3,1992065
1517	3,1809856	1550	3,1903317	1583	3,1994809
1518	3,1812718	1551	3,1906118	1584	3,1997552
1519	3,1815578	1552	3,1908917	1585	3,2000293
1520	3,1818436	1553	3,1911714	1586	3,2003032
1521	3,1821292	1554	3,1914510	1587	3,2005769
1522	3,1824146	1555	3,1917304	1588	3,2008505
1523	3,1826999	1556	3,1920096	1589	3,2011239
1524	3,1829850	1557	3,1922886	1590	3,2013971
1525	3,1832698	1558	3,1925674	1591	3,2016702
1526	3,1835545	1559	3,1928461	1592	3.2019431
1527	3,1838390	1560	3,1931246	1593	3,2022158
1528	3,1841233	1561	3,1934029	1594	3,2024883
1529	3.1844075	1562	3,1936810	1595	3,2027607
1530	3,1846914	1563	3,1939590	1596	3,2030329
1531	3,1849752	1564	3,1942367	1597	3,2033049
1532	3,1852588	1565	3,1945143	1598	3,2035768
1533	3.1855421	1566	3,1947917	1599	3.2038485
1534	3,1858253	1567	3,1950690	1600	3,2041200

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
1601	3,2043913	1634	3,2132521	1667	3,2219356
1602	3,2046625	1635	3,2135178	1668	3,2221960
1603	3,2049335	1636	3,2137833	1669	3,2224563
1604	3,2052044	1637	3.2140487	1670	3,2227165
1605	3,2054750	1638	3,2143139	1671	3,2229764
1606	3,2057455	1639	3,2145789	1672	3,2232363
1607	3,2060159	1640	3,2148438	1673	3,2234959
1608	3.2062860	1641	3,2151086	1674	3,2237555
1609	3,2065560	1642	3,2153732	1675	3,2240148
1610	3.2068259	1643	3,2156376	1676	3,2242740
1611	3,2070955	1644	3,2159018	1677	3,2245331
1612	3,2073650	1645	3,2161659	1678	3,2247920
1613	3,2076344	1646	3,2164298	1679	3,2250507
1614	3,2079035	1647	3,2166936	1680	3,2253093
1615	3,2081725	1648	3,2169572	1681	3,2255677
1616	3,2084414	1649	3,2172206	1682	3,2258260
1617	3,2087100	1650	3,2174839	1683	3,2260841
1618	3,2089785	1651	3,2177471	1684	3,2263421
1619	3,2092468	1652	3,2180100	1685	3,2265999
1620	3,2095150	1653	3,2182728	1686	3,2268576
1621	3,2097830	1654	3,2185355	1687	3,2271151
1622	3,2100508	1655	3,2187980	1688	3,2273724
1623	3,2103185	1656	3,2190603	1689	3,2276296
1624	3,2105860	1657	3,2193225	1690	3.2278867
1625	3,2108534	1658	3,2195845	1691	3,2281436
1626	3,2111205	1659	3,2198464	1692	3,2284004
1627	3,2113876	1660	3,2201081	1693	3,2286570
1628	3,2116544	1661	3,2203696	1694	3,2289134
1629	3,2119211	1662	3,2206310	1695	3,2291697
1630	3,2121876	1663	3,2208922	1696	3,2294258
1631	3,2124540	1664	3,2211533	1697	3,2296818
1632	3.2127201	1665	3,2214142	1698	3,2299377
1633	3,2129862	1666	3,2216750	1699	3,2301934
1634	3,2132521	1667	3,2219356	1700	3,2304489

N.	Logarith	N.	Logarith	N.	Logarith
1701	3,2307043	1734	3,2390491	1767	3,2472365
1702	3,2309596	1735	3,2392995	1768	3,2474823
1703	3,2312146	1736	3,2395497	1769	3,2477278
1704	3,2314696	1737	3.2397998	1770	3,2479733
1705	3,2317244	1738	3,2400498	1771	3,2482186
1706	3,2319790	1739	3,2402996	1772	3,2484637
1707	3,2322335	1740	3,2405492	1773	3,2487087
1708	3.2324879	1741	3,2407988	1774	3,2489536
1709	3,2327421	1742	3,2410481	1775	3,2491984
1710	3.2329961	1743	3,2412974	1776	3,2494430
1711	3,2332500	1744	3,2415465	1777	3,2496874
1712	3,2335038	1745	3,2417954	1778	3,2499318
1713	3,2337574	1746	3,2420442	1779	3,2501759
1714	3,2340108	1747	3,2422929	1780	3,2504200
1715	3,2342641	1748	3,2425414	1781	3,2506639
1716	3,2345173	1749	3,2427898	1782	3,2509077
1717	3,2347703	1750	3,2430380	1783	3,2511513
1718	3,2350232	1751	3,2432861	1784	3,2513948
1719	3,2352759	1752	3,2435341	1785	3,2516382
1720	3,2355284	1753	3,2437819	1786	3,2518815
1721	3,2357809	1754	3,2440296	1787	3,2521246
1722	3,2360331	1755	3,2442771	1788	3,2523675
1723	3,2362853	1756	3,2445245	1789	3,2526103
1724	3,2365373	1757	3,2447718	1790	3.2528530
1725	3,2367891	1758	3,2450189	1791	3,2530956
1726	3,2370408	1759	3,2452658	1792	3,2533380
1727	3,2372923	1760	3,2455127	1793	3,2535803
1728	3,2375437	1761	3.2457594	1794	3,2538224
1729	3,2377950	1762	3,2460059	1795	3,2540645
1730	3,2380461	1763	3,2462523	1796	3,2543063
1731	3,2382971	1764	3,2464986	1797	3,2545481
1732	3.2385479	1765	3,2467447	1798	3,2547897
1733	3,2387986	1766	3,2469907	1799	3,2550312
1734	3,2390491	1767	3,2472365	1800	3,2552725

N.	Logarith	N.	Logarith	N.	Logarith
1801	3,2555137	1834	3,2633993	1867	3,2711443
1802	3,2557548	1835	3,2636361	1868	3,2713769
1803	3,2559957	1836	3,2638727	1869	3,2716093
1804	3,2562365	1837	3,2641092	1870	3,2718416
1805	3,2564772	1838	3,2643455	1871	3,2720738
1806	3,2567177	1839	3,2645817	1872	3,2723058
1807	3,2569582	1840	3,2648178	1873	3,2725378
1808	3,2571984	1841	3,2650538	1874	3,2727696
1809	3,2574386	1842	3,2652896	1875	3,2730013
1810	3,2576786	1843	3,2655253	1876	3,2732328
1811	3,2579184	1844	3,2657609	1877	3,2734643
1812	3,2581582	1845	3,2659964	1878	3,2736956
1813	3,2583978	1846	3,2662317	1879	3,2739268
1814	3,2586373	1847	3.2664669	1880	3,2741578
1815	3,2588766	1848	3,2667020	1881	3,2743888
1816	3,2591158	1849	3,2669369	1882	3,2746196
1817	3,2593549	1850	3,2671717	1883	3,2748503
1818	3,2595939	1851	3,2674064	1884	3,2750809
1819	3,2598327	1852	3,2676410	1885	3,2753113
1820	3,2600714	1853	3,2678754	1886	3,2755417
1821	3,2603099	1854	3,2681097	1887	3,2757719
1822	3,2605484	1855	3,2683439	1888	3,2760020
1823	3,2607867	1856	3,2685780	1889	3,2762320
1824	3,2610248	1857	3,2688119	1890	3,2764618
1825	3,2612629	1858	3,2690457	1891	3,2766915
1826	3,2615008	1859	3,2692794	1892	3,2769211
1827	3,2617385	1860	3,2695129	1893	3.2771506
1828	3,2619762	1861	3,2697464	1894	3,2773800
1829	3,2622137	1862	3,2699797	1895	3,2776092
1830	3,2624511	1863	3,2702128	1896	3,2778383
1831	3,2626883	1864	3,2704459	1897	3,2780673
1832	3,2629255	1865	3,2706788	1898	3,2782962
1833	3,2631625	1866	3,2709116	1899	3,2785250
1834	3.2633993	1867	3,2711443	1900	3,2787536

N.	Logarith	N.	Logarith	N.	Logarith
2301	3,3619166	2334	3,3681008	2367	3,3741983
2302	3,3621053	2335	3,3682869	2368	3,3743817
2303	3,3622939	2336	3,3684728	2369	3,3745651
2304	3,3624825	2337	3,3686587	2370	3,3747483
2305	3,3626709	2338	3,3688445	2371	3,3749316
2306	3,3628593	2339	3,3690302	2372	3,3751147
2307	3,3630476	2340	3,3692159	2373	3,3752977
2308	3,3632358	2341	3,3694014	2374	3,3754807
2309	3,3634239	2342	3,3695869	2375	3,3756636
2310	3,3636120	2343	3,3697723	2376	3,3758464
2311	3,3637999	2344	3,3699576	2377	3,3760292
2312	3,3639878	2345	3,3701428	2378	3,3762118
2313	3,3641756	2346	3,3703280	2379	3,3763944
2314	3,3643633	2347	3,3705131	2380	3,3765769
2315	3,3645510	2348	3,3706981	2381	3,3767594
2316	3,3647386	2349	3,3708830	2382	3,3769418
2317	3,3649260	2350	3,3710679	2383	3,3771240
2318	3,3651134	2351	3,3712526	2384	3,3773062
2319	3,3653007	2352	3,3714373	2385	3,3774884
2320	3,3654880	2353	3,3716219	2386	3,3776704
2321	3,3656751	2354	3,3718065	2387	3,3778524
2322	3,3658622	2355	3,3719909	2388	3,3780343
2323	3,3660492	2356	3,3721753	2389	3,3782161
2324	3,3662361	2357	3,3723596	2390	3,3783979
2325	3,3664230	2358	3,3725438	2391	3,3785796
2326	3,3666097	2359	3,3727279	2392	3,3787612
2327	3,3667964	2360	3,3729120	2393	3,3789427
2328	3,3669830	2361	3,3730960	2394	3,3791241
2329	3,3671695	2362	3,3732799	2395	3,3793055
2330	3,3673559	2363	3,3734637	2396	3,3794868
2331	3,3675423	2364	3,3736475	2397	3,3796680
2332	3,3677285	2365	3,3738311	2398	3,3798492
2333	3,3679147	2366	3,3740147	2399	3,3800302
2334	3,3681008	2367	3,3741983	2400	3,3802112

N.	Logarith	N.	Logarith	N.	Logarith
2401	3.3803922	2434	3.3863206	2467	3.3921691
2402	3.3805730	2435	3.3864990	2468	3.3923452
2403	3.3807538	2436	3.3866773	2469	3.3925211
2404	3.3809345	2437	3.3868555	2470	3.3926969
2405	3.3811151	2438	3.3870337	2471	3.3928727
2406	3.3812956	2439	3.3872118	2472	3.3930485
2407	3.3814761	2440	3.3873898	2473	3.3932241
2408	3.3816565	2441	3.3875678	2474	3.3933997
2409	3.3818368	2442	3.3877457	2475	3.3935752
2410	3.3820170	2443	3.3879235	2476	3.3937506
2411	3.3821972	2444	3.3881012	2477	3.3939260
2412	3.3823773	2445	3.3882789	2478	3.3941013
2413	3.3825573	2446	3.3884565	2479	3.3942765
2414	3.3827373	2447	3.3886340	2480	3.3944517
2415	3.3829171	2448	3.3888114	2481	3.3946268
2416	3.3830969	2449	3.3889888	2482	3.3948018
2417	3.3832766	2450	3.3891661	2483	3.3949767
2418	3.3834563	2451	3.3893433	2484	3.3951516
2419	3.3836359	2452	3.3895205	2485	3.3953264
2420	3.3838154	2453	3.3896975	2486	3.3955011
2421	3.3839948	2454	3.3898746	2487	3.3956758
2422	3.3841741	2455	3.3900515	2488	3.3958504
2423	3.3843534	2456	3.3902284	2489	3.3960249
2424	3.3845326	2457	3.3904052	2490	3.3961993
2425	3.3847117	2458	3.3905819	2491	3.3963737
2426	3.3848908	2459	3.3907585	2492	3.3965480
2427	3.3850698	2460	3.3909351	2493	3.3967223
2428	3.3852487	2461	3.3911116	2494	3.3968964
2429	3.3854275	2462	3.3912880	2495	3.3970705
2430	3.3856063	2463	3.3914644	2496	3.3972446
2431	3.3857850	2464	3.3916407	2497	3.3974185
2432	3.3859636	2465	3.3918169	2498	3.3975924
2433	3.3861421	2466	3.3919931	2499	3.3977662
2434	3.3863206	2467	3.392169	2500	3.3979400

N.	Logarith	N.	Logarith	N.	Logarith
2501	3.3981137	2534	3.4038066	2567	3.4094259
2502	3.3982873	2535	3.4039780	2568	3.4095950
2503	3.3984608	2536	3.4041492	2569	3.4097641
2504	3.3986343	2537	3.4043205	2570	3.4099331
2505	3.3988077	2538	3.4044916	2571	3.4101021
2506	3.3989811	2539	3.4046627	2572	3.4102710
2507	3.3991543	2540	3.4048337	2573	3.4104398
2508	3.3993275	2541	3.4050047	2574	3.4106085
2509	3.3995007	2542	3.4051755	2575	3.4107772
2510	3.3996737	2543	3.4053464	2576	3.4109459
2511	3.3998467	2544	3.4055171	2577	3.4111144
2512	3.4000196	2545	3.4056878	2578	3.4112829
2513	3.4001925	2546	3.4058584	2579	3.4114513
2514	3.4003653	2547	3.4060289	2580	3.4116197
2515	3.4005380	2548	3.4061994	2581	3.4117880
2516	3.4007106	2549	3.4063698	2582	3.4119562
2517	3.4008832	2550	3.4065402	2583	3.4121244
2518	3.4010557	2551	3.4067105	2584	3.4122925
2519	3.4012282	2552	3.4068807	2585	3.4124605
2520	3.4014005	2553	3.4070508	2586	3.412628
2521	3.4015728	2554	3.4072209	2587	3.4127964
2522	3.4017451	2555	3.4073909	2588	3.4129643
2523	3.4019173	2556	3.4075608	2589	3.413132
2524	3.4020893	2557	3.4077307	2590	3.413299
2525	3.4022614	2558	3.4079005	2591	3.413467
2526	3.4024333	2559	3.4080703	2592	3.413635
2527	3.4026052	2560	3.4082400	2593	3.413802
2528	3.4027771	2561	3.4084096	2594	3.413970
2529	3.4029488	2562	3.4085791	2595	3.414137
2530	3.4031205	2563	3.4087486	2596	3.414304
2531	3.4032921	2564	3.4089180	2597	3.414471
2532	3.4034637	2565	3.4090874	2598	3.414639
2533	3.4036352	2566	3.4092567	2599	3.414806
2534	3.4038065	2567	3.4094259	2600	3.414973

N.	Logarith	N.	Logarith	N.	Logarith
2601	3.4151404	2634	3.4206158	2667	3.4260230
2602	3.4153073	2635	3.4207806	2668	3.4261858
2603	3.4154742	2636	3.4209454	2669	3.4263486
2604	3.4156410	2637	3.4211101	2670	3.4265113
2605	3.4158077	2638	3.4212748	2671	3.4266739
2606	3.4159744	2639	3.4214394	2672	3.4268365
2607	3.4161410	2640	3.4216039	2673	3.4269990
2608	3.4163076	2641	3.4217684	2674	3.4271614
2609	3.4164741	2642	3.4219328	2675	3.4273238
2610	3.4166405	2643	3.4220972	2676	3.4274861
2611	3.4168069	2644	3.4222614	2677	3.4276484
2612	3.4169732	2645	3.4224257	2678	3.4278106
2613	3.4171394	2646	3.4225898	2679	3.4279727
2614	3.4173056	2647	3.4227539	2680	3.4281348
2615	3.4174717	2648	3.4229180	2681	3.4282968
2616	3.4176377	2649	3.4230820	2682	3.4284588
2617	3.4178037	2650	3.4232459	2683	3.4286207
2618	3.4179696	2651	3.4234097	2684	3.4287825
2619	3.4181355	2652	3.4235735	2685	3.4289443
2620	3.4183013	2653	3.4237372	2686	3.4291060
2621	3.4184670	2654	3.4239009	2687	3.4292677
2622	3.4186327	2655	3.4240645	2688	3.4294293
2623	3.4187983	2656	3.4242281	2689	3.4295908
2624	3.4189638	2657	3.4243916	2690	3.4297523
2625	3.4191293	2658	3.4245550	2691	3.4299137
2626	3.4192947	2659	3.4247183	2692	3.4300751
2627	3.4194601	2660	3.4248816	2693	3.4302364
2628	3.4196254	2661	3.4250449	2694	3.4303976
2629	3.4197906	2662	3.4252080	2695	3.4305588
2630	3.4199557	2663	3.4253712	2696	3.4307199
2631	3.4201208	2664	3.4255342	2697	3.4308809
2632	3.4202859	2665	3.4256972	2698	3.4310419
2633	3.4204509	2666	3.4258601	2699	3.4312029
2634	3.4206158	2667	3.4260230	2700	3.4313638

N.	Logarith	N.	Logarith	N.	Logarith
2701	3.4315246	2734	3.4367985	2767	3.4420092
2702	3.4316853	2735	3.4369573	2768	3.4421661
2703	3.4318460	2736	3.4371161	2769	3.4423229
2704	3.4320067	2737	3.4372748	2770	3.4424798
2705	3.4321673	2738	3.4374334	2771	3.4426365
2706	3.4323278	2739	3.4375920	2772	3.4427932
2707	3.4324882	2740	3.4377506	2773	3.4429499
2708	3.4326487	2741	3.4379090	2774	3.4431065
2709	3.4328090	2742	3.4380674	2775	3.4432630
2710	3.4329693	2743	3.4382258	2776	3.4434195
2711	3.4331295	2744	3.4383841	2777	3.4435759
2712	3.4332897	2745	3.4385423	2778	3.4437322
2713	3.4334498	2746	3.4387005	2779	3.4438885
2714	3.4336098	2747	3.4388587	2780	3.4440448
2715	3.4337698	2748	3.4390167	2781	3.4442010
2716	3.4339298	2749	3.4391747	2782	3.4443571
2717	3.4340896	2750	3.4393327	2783	3.4445132
2718	3.4342494	2751	3.4394906	2784	3.4446692
2719	3.4344092	2752	3.4396484	2785	3.4448252
2720	3.4345689	2753	3.4398062	2786	3.4449811
2721	3.4347285	2754	3.4399639	2787	3.4451370
2722	3.4348881	2755	3.4401216	2788	3.4452928
2723	3.4350476	2756	3.4402792	2789	3.4454485
2724	3.4352071	2757	3.4404368	2790	3.4456042
2725	3.4353665	2758	3.4405943	2791	3.4457598
2726	3.4355258	2759	3.4407517	2792	3.4459154
2727	3.4356851	2760	3.4409091	2793	3.4460709
2728	3.4358444	2761	3.4410664	2794	3.4462264
2729	3.4360035	2762	3.4412237	2795	3.4463818
2730	3.4361626	2763	3.4413809	2796	3.4465372
2731	3.4363217	2764	3.4415380	2797	3.4466925
2732	3.4364807	2765	3.4416951	2798	3.4468477
2733	3.4366396	2765	3.4418522	2799	3.4470029
2734	3.4367985	2767	3.4420092	2800	3.4471580

N.	Logarith	N.	Logarith	N.	Logarith
2801	3,4473131	2834	3,4523998	2867	3,4574277
2802	3,4474681	2835	3,4525531	2868	3,4575791
2803	3,4476231	2836	3,4527062	2869	3,4577305
2804	3,4477780	2837	3,4528593	2870	3,4578819
2805	3,4479329	2838	3,4530124	2871	3,4580332
2806	3,4480877	2839	3,4531654	2872	3,4581844
2807	3,4482424	2840	3,4533183	2873	3,4583356
2808	3,4483971	2841	3,4534712	2874	3,4584867
2809	3,4485517	2842	3,4536241	2875	3,4586378
2810	3,4487063	2843	3,4537769	2876	3,4587889
2811	3,4488608	2844	3,4539296	2877	3,4589399
2812	3,4490153	2845	3,4540823	2878	3,4590908
2813	3,4491697	2846	3,4542349	2879	3.4592417
2814	3,4493241	2847	3.4543875	2880	3,4593925
2815	3,4494784	2848	3,4545400	2881	3,4595433
2816	3,4496326	2849	3,4546924	2882	3,4596940
2817	3,4497868	2850	3,4548449	2883	3,4598446
2818	3,4499410	2851	3,4549972	2884	3.4599953
2819	3,4500951	2852	3,4551495	2885	3,4601458
2820	3,4502491	2853	3,4553018	2886	3,4602963
2821	3,4504031	2854	3.4554540	2887	3,4604468
2822	3,4505570	2855	3,4556061	2888	3,4605972
2823	3,4507109	2856	3,4557582	2889	3,4607475
2824	3,4508647	2857	3,4559102	2890	3,4608978
2825	3,4510184	2858	3,4560622	2891	3,4610481
2826	3,4511721	2859	3,4562142	2892	3,4611983
2827	3,4513258	2860	3.4563660	2893	3.4613484
2828	3,4514794	2861	3,4565179	2894	3,4614985
2829	3,4516329	2862	3,4566696	2895	3,4616486
2830	3,4517864	2863	3,4568213	2896	3,4617986
2831	3,4519399	2864	3,4569730	2897	3,4619485
2832	3.4520932	2865	3,4571246	2898	3,4620984
2833	3,4522466	2866	3,4572762	2899	3,4622482
2834	3,4523998	2867	3,4574277	2900	3,4623980

N.	Logarith	N.	Logarith	N.	Logarith
2901	3,4625477	2934	3,4674601	2967	3,4723175
2902	3,4626974	2935	3,4676081	2968	3,4724639
2903	3,4628470	2936	3,4677560	2969	3,4726102
2904	3,4629966	2937	3,4679039	2970	3,4727564
2905	3,4631461	2938	3,4680518	2971	3,4729027
2906	3,4632956	2939	3,4681996	2972	3,4730488
2907	3,4634450	2940	3,4683473	2973	3,4731949
2908	3,4635944	2941	3,4684950	2974	3,4733410
2909	3,4637437	2942	3,4686427	2975	3,4734870
2910	3,4638930	2943	3,4687903	2976	3,4736329
2911	3,4640422	2944	3,4689378	2977	3,4737788
2912	3,4641914	2945	3,4690853	2978	3,4739247
2913	3,4643405	2946	3,4692327	2979	3,4740705
2914	3,4644895	2947	3,4693801	2980	3,4742163
2915	3,4646386	2948	3,4695275	2981	3,4743620
2916	3,4647875	2949	3,4696748	2982	3,4745076
2917	3,4649364	2950	3,4698220	2983	3,474653
2918	3,4650853	2951	3,4699692	2984	3,4747988
2919	3,4652341	2952	3,4701163	2985	3,474944
2920	3,4653828	2953	3,4702634	2986	3,4750898
2921	3,4655316	2954	3,4704105	2987	3,475235
2922	3,4656802	2955	3,4705575	2988	3,4753800
2923	3,4658288	2956	3,4707044	2989	3,4755259
2924	3,4659774	2957	3,4708513	2990	3,475671
2925	3,4661259	2958	3,4709982	2991	3,475816
2926	3,4662743	2959	3,4711450	2992	3,4759610
2927	3,4664227	2960	3,4712917	2993	3,476106
2928	3,4665711	2961	3,4714384	2994	3,4762518
2929	3,4667194	2962	3,4715851	2995	3,476396
2930	3,4668676	2963	3,4717317	2996	3.476541
2931	3,4670158	2964	3,4718782	2997	3,476686
2932	3,4671640	2965	3,4720247	2998	3,476831
2933	3,4673121	2966	3,4721711	2999	3,476976
2934	3,4674601	2967	3,4723175	3000	3,477121

N.	Logarith	N.	Logarith	N.	Logarith
3001	3,4772660	3034	3,4820156	3067	3,4867138
3002	3,4774107	3035	3,4821587	3068	3,4868554
3003	3,4775553	3036	3,4823018	3069	3,4869969
3004	3,4776999	3037	3,4824448	3070	3,4871384
3005	3,4778445	3038	3,4825878	3071	3,4872798
3006	3,4779890	3039	3,4827307	3072	3,4874212
3007	3,4781334	3040	3,4828736	3073	3,4875626
3008	3,4782778	3041	3,4830164	3074	3,4877039
3009	3,4784222	3042	3,4831592	3075	3,4878451
3010	3,4785665	3043	3,4833019	3076	3,4879863
3011	3,4787108	3044	3,4834446	3077	3,4881275
3012	3,4788550	3045	3,4835873	3078	3,4882686
3013	3,4789991	3046	3,4837299	3079	3,4884097
3014	3,4791432	3047	3,4838725	3080	3.4885507
3015	3,4792873	3048	3,4840150	3081	3.4886917
3016	3,4794313	3049	3,4841574	3082	3,4888326
3017	3,4795753	3050	3,4842998	3083	3,4889735
3018	3,4797192	3051	3,4844422	3084	3,4891144
3019	3,4798631	3052	3,4845845	3085	3,4892552
3020	3,4800069	3053	3,4847268	3086	3,4893959
3021	3,4801507	3054	3,4848690	3087	3,4895366
3022	3,4802945	3055	3,4850112	3088	3,4896773
3023	3,4804381	3056	3,4851533	3089	3.4898179
3024	3,4805818	3057	3,4852954	3090	3,4899585
3025	3,4807254	3058	3,4854375	3091	3.4900990
3026	3,4808689	3059	3,4855795	3092	3,4902395
3027	3,4810124	3060	3,4857214	3093	3,4903799
3028	3,4811559	3061	3,4858633	3094	3,4905203
3029	3.4812993	3062	3,4860052	3095	3,4906607
3030	3.4814426	3063	3,4861470	3096	3,4908009
3031	3,4815859	3064	3,4862888	3097	3.4909412
3032	3,4817292	3065	3,4864305	3098	3,4910814
3033	3.4818724	3066	3.4865721	3099	3,4912216
3034	3.4820156	3067	3,4867138	3100	3,4913617

N.	Logarith	N.	Logarith	N.	Logarit
3101	3.4915018	3134	3.4960990	3167	3.500648
3102	3.4916418	3135	3.4962375	3168	3.500785
3103	3.4917818	3136	3.4963761	3169	3.500922
3104	3.4919217	3137	3.4965145	3170	3.501059
3105	3.4920616	3138	3.4966529	3171	3.501196
3106	3.4922014	3139	3.4967913	3172	3.501333
3107	3.4923413	3140	3.4969296	3173	3.501470
3108	3.4924810	3141	3.4970679	3174	3.501606
3109	3.4926207	3142	3.4972062	3175	3.501743
3110	3.4927604	3143	3.4973444	3176	3.501880
3111	3.4929000	3144	3.4974825	3177	3.502017
3112	3.4930396	3145	3.4976206	3178	3.5021539
3113	3.4931791	3146	3.4977587	3179	3.502290
3114	3.4933186	3147	3.4978967	3180	3.502427
3115	3.4934580	3148	3.4980347	3181	3.502563
3116	3.4935974	3149	3.4981727	3182	3.502700
3117	3.4937368	3150	3.4983106	3183	3.502836
3118	3.4938761	3151	3.4984484	3184	3.502973
3119	3.4940154	3152	3.4985862	3185	3.5031094
3120	3.4941546	3153	3.4987240	3186	3.5032458
3121	3.4942938	3154	3.4988617	3187	3.503382
3122	3.4944329	3155	3.4989994	3188	3.5035183
3123	3.4945720	3156	3.4991370	3189	3.5036545
3124	3.4947110	3157	3.4992746	3190	3.5037907
3125	3.4948500	3158	3.4994121	3191	3.5039268
3126	3.4949890	3159	3.4995496	3192	3.5040629
3127	3.4951279	3160	3.4996871	3193	3.5041989
3128	3.4952667	3161	3.4998245	3194	3.5043349
3129	3.4954056	3162	3.4999619	3195	3.5044709
3130	3.4955443	3163	3.5000992	3196	3.5046068
3131	3.4956831	3164	3.5002365	3197	3.5047426
3132	3.4958218	3165	3.5003737	3198	3.5048785
3133	3.4959604	3166	3.5005109	3199	3.5050142
3134	3.4960990	3167	3.5006481	3200	3.5051500

N.	Logarith	N.	Logarith	N.	Logarith
3201	3,5052857	3234	3,5097400	3267	3,5141491
3202	3,5054213	3235	3,5098743	3268	3,5142820
3203	3,5055569	3236	3,5100085	3269	3,5144149
3204	3,5056925	3237	3,5101427	3270	3,5145478
3205	3,5058280	3238	3,5102768	3271	3,5146805
3206	3,5059635	3239	3,5104109	3272	3,5148133
3207	3,5060990	3240	3,5105450	3273	3,5149460
3208	3,5062344	3241	3,5106790	3274	3,5150787
3209	3,5063697	3242	3,5108130	3275	3,5152113
3210	3,5065050	3243	3,5109469	3276	3,5153439
3211	3,5066403	3244	3,5110808	3277	3,5154764
3212	3,5067755	3245	3,5112147	3278	3,5156089
3213	3,5069107	3246	3,5113485	3279	3,5157414
3214	3,5070459	3247	3,5114823	3280	3,5158738
3215	3,5071810	3248	3,5116160	3281	3,5160062
3216	3,5073160	3249	3,5117497	3282	3,5161386
3217	3,5074511	3250	3,5118834	3283	3,5162709
3218	3,5075860	3251	3,5120170	3284	3,5164031
3219	3,5077210	3252	3,5121505	3285	3,5165354
3220	3,5078559	3253	3,5122841	3286	3,5166676
3221	3,5079907	3254	3,5124175	3287	3,5167997
3222	3,5081255	3255	3,5125510	3288	3,5169318
3223	3,5082603	3256	3,5126844	3289	3,5170639
3224	3,5083950	3257	3,5128178	3290	3,5171959
3225	3,5085297	3258	3,5129511	3291	3,5173279
3226	3,5086644	3259	3,5130844	3292	3,5174598
3227	3,5087990	3260	3,5132176	3293	3,5175917
3228	3,5089335	3261	3,5133508	3294	3,5177236
3229	3,5090680	3262	3,5134840	3295	3,5178554
3230	3,5092025	3263	3,5136171	3296	3,5179872
231	3,5093370	3264	3,5137501	3297	3,5181189
232	3,5094713	3265	3,5138832	3298	3,5182506
233	3,5096057	3266	3,5140162	3299	3,5183823
234	3,5097400	3267	3,5141491	3300	3,5185139

N.	Logarith	N.	Logarith	N.	Logarith
3301	3,5186455	3334	3,5229656	3367	3,5272431
3302	3,5187771	3335	3,5230958	3368	3,5273721
3303	3,5189086	3336	3,5232260	3369	3,5275010
3304	3,5190400	3337	3,5233562	3370	3,5276299
3305	3,5191715	3338	3,5234863	3371	3,5277588
3306	3,5193028	3339	3,5236164	3372	3,5278876
3307	3,5194342	3340	3,5237465	3373	3,5280163
3308	3,5195655	3341	3,5238765	3374	3,5281451
3309	3,5196968	3342	3,5240064	3375	3,5282738
3310	3,5198280	3343	3,5241364	3376	3,5284024
3311	3,5199592	3344	3,5242663	3377	3,5285311
3312	3,5200903	3345	3,5243961	3378	3,5286596
3313	3,5202214	3346	3,5245259	3379	3,5287882
3314	3,5203525	3347	3,5246557	3380	3,5289167
3315	3,5204835	3348	3,5247854	3381	3,5290452
3316	3,5206145	3349	3,5249151	3382	3,5291736
3317	3,5207455	3350	3,5250448	3383	3,5293020
3318	3,5208764	3351	3,5251744	3384	3,5294303
3319	3,5210073	3352	3,5253040	3385	3,5295587
3320	3,5211381	3353	3,5254335	3386	3,5296869
3321	3,5212689	3354	3,5255631	3387	3,5298152
3322	3,5213996	3355	3,5256925	3388	3,5299434
3323	3,5215303	3356	3,5258219	3389	3,5300710
3324	3,5216610	3357	3,5259513	3390	3,5301997
3325	3,5217916	3358	3,5260807	3391	3,5303278
3326	3,5219222	3359	3,5262100	3392	3,5304558
3327	3,5220528	3360	3,5263393	3393	3,5305839
3328	3,5221833	3361	3,5264685	3394	3,5307118
3329	3,5223138	3362	3,5265977	3395	3,5308398
3330	3,5224442	3363	3,5267269	3396	3,5309677
3331	3,5225746	3364	3,5268560	3397	3,531095
3332	3,5227050	3365	3,5269851	3398	3,531223
3333	3,5228353	3366	3,5271141	3399	3,531351
3334	3,5229656	3367	3,5272431	3400	3,5314789

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
3401	3.5316066	3434	3.5358003	3467	3.5399538
3402	3.5317343	3435	3.5359267	3468	3.5400791
3403	3.5318619	3436	3.5360532	3469	3.5402043
3404	3.5319895	3437	3.5361795	3470	3.5403295
3405	3.5321171	3438	3.5363059	3471	3.5404546
3406	3.5322446	3439	3.5364322	3472	3.5405797
3407	3.5323721	3440	3.5365584	3473	3.5407048
3408	3.5324996	3441	3.5366847	3474	3.5408298
3409	3.5326270	3442	3.5368109	3475	3.5409548
3410	3.5327544	3443	3.5369370	3476	3.5410798
3411	3.5328817	3444	3.5370631	3477	3.5412047
3412	3.5330090	3445	3.5371892	3478	3.5413296
3413	3.5331363	3446	3.5373153	3479	3.5414544
3414	3.5332635	3447	3.5374413	3480	3.5415792
3415	3.5333907	3448	3.5375672	3481	3.5417040
3416	3.5335179	3449	3.5376932	3482	3.5418288
3417	3.5336450	3450	3.5378191	3483	3.5419535
3418	3.5337721	3451	3.5379450	3484	3.5420781
3419	3.5338991	3452	3.5380708	3485	3.5422028
3420	3.5340261	3453	3.5381966	3486	3.5423274
3421	3.5341531	3454	3.5383223	3487	3.5424519
3422	3.5342800	3455	3.5384481	3488	3.5425765
3423	3.5344069	3456	3.5385737	3489	3.5427010
3424	3.5345338	3457	3.5386994	3490	3.5428254
3425	3.5346606	3458	3.5388250	3491	3.5429498
3426	3.5347874	3459	3.5389506	3492	3.5430742
3427	3.5349141	3460	3.5390761	3493	3.5431986
3428	3.5350408	3461	3.5392016	3494	3.5433229
3429	3.5351675	3462	3.5393271	3495	3.5434472
3430	3.5352941	3463	3.5394525	3496	3.5435714
3431	3.5354207	3464	3.5395779	3497	3.5436956
3432	3.5355473	3465	3.5397032	3498	3.5438198
3433	3.5356738	3466	3.5398286	3499	3.5439439
3434	3.5358003	3467	3.5399538	3500	3.5440680

N.	Logarith	N.	Logarith	N.	Logarit
3501	3,5441921	3534	3,5482665	3567	3,552303
3502	3,5443161	3535	3,5483894	3568	3,552424
3503	3,5444401	3536	3,5485123	3569	3,552546
3504	3,5445641	3537	3,5486351	3570	3,552668
3505	3.5446880	3538	3,5487578	3571	3,552789
3506	3,5448119	3539	3,5488806	3572	3,552911
3507	3,5449358	3540	3,5490033	3573	3,553033
3508	3,5450596	3541	3,5491259	3574	3,553154
3509	3,5451834	3542	3,5492486	3575	3,553276
3510	3,5453071	3543	3,5493712	3576	3,553397
3511	3,5454308	3544	3,5494937	3577	3,553518
3512	3,5455545	3545	3,5496162	3578	3,553640
3513	3,5456781	3546	3,5497387	3579	3,553761
3514	3,5458018	3547	3,5498612	3580	3,553883
3515	3.5459253	3548	3,5499836	3581	3.554004
3516	3,5460489	3549	3,5501060	3582	3,554125
3517	3,5461724	3550	3,5502283	3583	3,554246
3518	3,5462958	3551	3,5503507	3584	3,554368
3519	3,5464193	3552	3,5504730	3585	3,554489
3520	3,5465427	3553	3,5505952	3586	3,554610
3521	3,5466660	3554	3.5507174	3587	3,5547314
3522	3,5467894	3555	3.5508396	3588	3.5548524
3523	3,5469126	3556	3,5509618	3589	3,5549735
3524	3,5470359	3557	3,5510839	3590	3,5550944
3525	3,5471591	3558	3,5512059	3591	3.5552154
3526	3,5472823	3559	3,5513280	3592	3,5553363
3527	3,5474055	3560	3,5514500	3593	3,5554572
3528	3,5475286	3561	3,5515720	3594	3,5555781
3529	3,5476517	3562	3,5516939	3595	3,5556989
3530	3,5477747	3563	3,5518158	3596	3,5558197
3531	3,5478977	3564	3.5519377	3597	3,5559404
3532	3,5480207	3565	3,5520595	3598	3,5560612
3533	3,5481436	3566	3,5521813	3599	3,5561818
3534	3,5482665	3567	3,5523031	3600	3,5563025

.	Logarith	N.	Logarith	N.	Logarith
01	3,5564231	3634	3,5603849	3667	3,5643109
02	3,5565437	3635	3,5605044	3668	3,5644293
03	3,5566643	3636	3,5606239	3669	3,5645477
04	3,5567848	3637	3,5607433	3670	3,5646661
05	3,5569053	3638	3,5608627	3671	3,5647844
06	3,5570257	3639	3,5609820	3672	3,5649027
07	3,5571461	3640	3,5611014	3673	3,5650209
08	3,5572665	3641	3,5612207	3674	3,5651392
09	3,5573869	3642	3,5613399	3675	3,5652573
0	3,5575072	3643	3,5614592	3676	3,5653755
11	3,5576275	3644	3,5615784	3677	3,5654936
12	3,5577477	3645	3,5616975	3678	3,5656117
13	3,5578680	3646	3,5618167	3679	3,5657298
14	3,5579881	3647	3,5619358	3680	3,5658478
15	3,5581083	3648	3,5620548	3681	3,5659658
16	3,5582284	3649	3,5621739	3682	3,5660838
17	3,5583485	3650	3,5622929	3683	3,5662017
18	3,5584686	3651	3,5624118	3684	3,5663196
19	3,5585886	3652	3,5625308	3685	3,5664375
20	3,5587086	3653	3,5626497	3686	3,5665553
21	3,5588285	3654	3,5627685	3687	3,5666731
22	3,5589484	3655	3,5628874	3688	3,5667909
23	3,5590683	3656	3,5630062	3689	3,5669087
24	3,5591882	3657	3,5631250	3690	3,5670264
25	3,5593080	3658	3,5632437	3691	3,5671440
26	3,5594278	3659	3,5633624	3692	3,5672617
27	3,5595476	3660	3,5634811	3693	3,5673793
28	3,5596673	3661	3,5635997	3694	3,5674969
29	3,5597870	3662	3,5637183	3695	3,5676144
30	3,5599066	3663	3,5638369	3696	3,5677320
31	3,5600262	3664	3,5639555	3697	3,5678494
32	3,5601458	3665	3,5640740	3698	3,5679669
33	3,5602654	3666	3,5641925	3699	3,5680843
34	3,5603849	3667	3,5643109	3700	3.5682017

N.	Logarith	N.	Logarith	N.	Logarit
3701	3.5683191	3734	3.5721743	3767	3.57599
3702	3.5684364	3735	3.5722906	3768	3.57611
3703	3.5685537	3736	3.5724069	3769	3.57622
3704	3.5686710	3737	3.5725231	3770	3.57634
3705	3.5687882	3738	3.5726393	3771	3.57645
3706	3.5689054	3739	3.5727555	3772	3.57657
3707	3.5690226	3740	3.5728716	3773	3.57668
3708	3.5691397	3741	3.5729877	3774	3.57680
3709	3.5692568	3742	3.5731038	3775	3.57691
3710	3.5693739	3743	3.5732198	3776	3.57703
3711	3.5694910	3744	3.5733358	3777	3.57714
3712	3.5696080	3745	3.5734518	3778	3.57726
3713	3.5697249	3746	3.5735678	3779	3.57737
3714	3.5698419	3747	3.5736837	3780	3.57749
3715	3.5699588	3748	3.5737996	3781	3.57760
3716	3.5700757	3749	3.5739154	3782	3.57772
3717	3.5701926	3750	3.5740313	3783	3.57783
3718	3.5703094	3751	3.5741471	3784	3.57795
3719	3.5704262	3752	3.5742628	3785	3.57806
3720	3.5705429	3753	3.5743786	3786	3.57818
3721	3.5706597	3754	3.5744943	3787	3.57829
3722	3.5707764	3755	3.5746099	3788	3.57841
3723	3.5708930	3756	3.5747256	3789	3.57852
3724	3.5710097	3757	3.5748412	3790	3.57863
3725	3.5711263	3758	3.5749568	3791	3.57875
3726	3.5712428	3759	3.5750723	3792	3.57886
3727	3.5713594	3760	3.5751878	3793	3.57898
3728	3.5714759	3761	3.5753033	3794	3.57909
3729	3.5715924	3762	3.5754188	3795	3.57921
3730	3.5717088	3763	3.5755342	3796	3.57932
3731	3.5718252	3764	3.5756496	3797	3.57944
3732	3.5719416	3765	3.5757650	3798	3.57955
3733	3.5720580	3766	3.5758803	3799	3.57966
3734	3.5721743	3767	3.5759956	3800	3.57978

N.	Logarith	N.	Logarith	N.	Logarith
801	3,5798979	3834	3,5836521	3867	3,5873742
802	3,5800121	3835	3,5837654	3868	3,5874865
803	3,5801263	3836	3,5838786	3869	3,5875987
804	3,5802405	3837	3,5839918	3870	3,5877110
805	3,5803547	3838	3,5841050	3871	3,5878232
806	3,5804688	3839	3,5842181	3872	3,5879353
807	3,5805829	3840	3,5843312	3873	3,5880475
808	3,5806969	3841	3,5844443	3874	3,5881596
809	3,5808110	3842	3,5845574	3875	3,5882717
810	3,5809250	3843	3,5846704	3876	3,5883838
811	3,5810389	3844	3,5847834	3877	3,5884958
812	3.5811529	3845	3,5848963	3878	3,5886078
813	3,5812668	3846	3,5850093	3879	3,5887198
814	3,5813807	3847	3,5851222	3880	3,5888317
815	3,5814945	3848	3,5852351	3881	3,5889436
816	3,5816084	3849	3,5853479	3882	3,5890555
817	3,5817222	3850	3,5854607	3883	3,5891674
818	3,5818359	3851	3,5855735	3884	3,5892792
819	3,5819497	3852	3,5856863	3885	3,5893910
820	3.5820634	3853	3,5857990	3886	3,5895028
821	3,5821770	3854	3,5859117	3887	3,5896145
822	3,5822907	3855	3,5860244	3888	3,5897262
823	3,5824043	3856	3,5861370	3889	3,5898379
824	3,5825179	3857	3,5862496	3890	3,5899496
825	3.5826314	3858	3,5863622	3891	3,5900612
826	3,5827450	3859	3,5864748	3892	3,5901728
827	3,5828585	3860	3,5865873	3893	3,5902844
828	3,5829719	3861	3,5866998	3894	3,5903959
829	3,5830854	3862	3,5868123	3895	3,5905075
830	3,5831988	3863	3,5869247	3896	3,5906189
831	3,5833122	3864	3,5870371	3897	3,5907304
832	3,5834255	3865	3,5871495	3898	3,5908418
833	3,5835388	3866	3,5872618	3899	3,5909532
834	3,5836521	3867	3,5873742	3900	3,5910646

N.	Logarith	N.	Logarith	N.	Logarith
3901	3.5911759	3934	3.5948344	3967	3.5984622
3902	3.5912873	3935	3.5949447	3968	3.5985717
3903	3.5913985	3936	3.5950551	3969	3.5986811
3904	3.5915098	3937	3.5951654	3970	3.5987905
3905	3.5916210	3938	3.5952757	3971	3.5988999
3906	3.5917322	3939	3.5953860	3972	3.5990092
3907	3.5918434	3940	3.5954962	3973	3.5991186
3908	3.5919546	3941	3.5956064	3974	3.5992279
3909	3.5920657	3942	3.5957166	3975	3.5993371
3910	3.5921768	3943	3.5958268	3976	3.5994464
3911	3.5922878	3944	3.5959369	3977	3.5995556
3912	3.5923988	3945	3.5960470	3978	3.5996648
3913	3.5925098	3946	3.5961571	3979	3.5997739
3914	3.5926208	3947	3.5962671	3980	3.5998831
3915	3.5927318	3948	3.5963771	3981	3.5999922
3916	3.5928427	3949	3.5964871	3982	3.6001013
3917	3.5929536	3950	3.5965971	3983	3.6002103
3918	3.5930644	3951	3.5967070	3984	3.6003193
3919	3.5931753	3952	3.5968169	3985	3.6004283
3920	3.5932861	3953	3.5969268	3986	3.6005373
3921	3.5933968	3954	3.5970367	3987	3.6006462
3922	3.5935076	3955	3.5971465	3988	3.6007551
3923	3.5936183	3956	3.5972563	3989	3.6008640
3924	3.5937290	3957	3.5973660	3990	3.6009729
3925	3.5938397	3958	3.5974758	3991	3.6010817
3926	3.5939503	3959	3.5975855	3992	3.6011905
3927	3.5940609	3960	3.5976952	3993	3.6012993
3928	3.5941715	3961	3.5978048	3994	3.6014080
3929	3.5942820	3962	3.5979145	3995	3.6015168
3930	3.5943925	3963	3.5980241	3996	3.6016255
3931	3.5945030	3964	3.5981336	3997	3.6017341
3932	3.5946135	3965	3.5982432	3998	3.6018428
3933	3.5947239	3966	3.5983527	3999	3.6019514
3934	3.5948344	3967	3.5984622	4000	3.6020600

N.	Logarith	N.	Logarith	N.	Logarith
4001	3,6021685	4034	3,6057359	4067	3,6092742
4002	3,6022771	4035	3,6058435	4068	3,6093809
4003	3,6023856	4036	3,6059512	4069	3,6094877
4004	3,6024941	4037	3,6060587	4070	3,6095944
4005	3,6026025	4038	3,6061663	4071	3,6097011
4006	3,6027109	4039	3,6062738	4072	3,6098078
4007	3,6028193	4040	3,6063814	4073	3,6099144
4008	3,6029277	4041	3,6064888	4074	3,6100210
4009	3,6030361	4042	3,6065963	4075	3,6101276
4010	3,6031444	4043	3,6067037	4076	3,6102342
4011	3,6032527	4044	3,6068111	4077	3,6103407
4012	3,6033609	4045	3,6069185	4078	3,6104472
4013	3,6034692	4046	3,6070259	4079	3,6105537
4014	3,6035774	4047	3,6071332	4080	3.6106602
4015	3,6036855	4048	3,6072405	4081	3,6107666
4016	3,6037937	4049	3,6073478	4082	3,6108730
4017	3,6039018	4050	3,6074550	4083	3,6109794
018	3,6040099	4051	3,6075622	4084	3,6110857
019	3.6041180	4052	3,6076694	4085	3,6111921
020	3,6042261	4053	3,6077766	4086	3.6112984
021	3,6043341	4054	3,6078837	4087	3,6114046
022	3,6044421	4055	3,6079909	4088	3,6115109
023	3,6045500	4056	3,6080979	4089	3,6116171
024	3,6046580	4057	3,6082050	4090	3,6117233
025	3,6047659	4058	3,6083120	4091	3,6118295
026	3,6048738	4059	3,6084190	4092	3,6119356
027	3,6049816	4060	3,6085260	4093	3,6120417
028	3,6050895	4061	3,6086330	4094	3,6121478
029	3,6051973	4062	3,6087399	4095	3,6122539
030	3.6053050	4063	3,6088468	4096	3,6123599
031	3,6054128	4064	3,6089537	4097	3,6124660
032	3,6055205	4065	3,6090605	4098	3,6125720
033	3.6056282	4066	3.6091674	4099	3,6126779
034	3,6057359	4067	3,6092742	4100	3,6127839

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarit*
4101	3,6128898	4134	3,6163705	4167	3,619823
4102	3,6129957	4135	3,6164755	4168	3,619927
4103	3,6131015	4136	3,6165805	4169	3,620031
4104	3,6132073	4137	3,6166855	4170	3,620136
4105	3,6133132	4138	3,6167905	4171	3,620240
4106	3,6134189	4139	3,6168954	4172	3,620344
4107	3,6135247	4140	3,6170003	4173	3,620448
4108	3,6136304	4141	3,6171052	4174	3,620552
4109	3,6137361	4142	3,6172101	4175	3,620656
4110	3,6138418	4143	3,6173149	4176	3,620760
4111	3,6139475	4144	3,6174197	4177	3,620864
4112	3,6140531	4145	3,6175245	4178	3,620968
4113	3,6141587	4146	3,6176293	4179	3,621072
4114	3,6142643	4147	3,6177340	4180	3,621176
4115	3,6143698	4148	3,6178387	4181	3,621280
4116	3,6144754	4149	3,6179434	4182	3,621384
4117	3,6145809	4150	3,6180481	4183	3,621487
4118	3,6146863	4151	3,6181527	4184	3,621591
4119	3,6147918	4152	3,6182573	4185	3,621695
4120	3.6148972	4153	3,6183619	4186	3,621799
4121	3,6150026	4154	3,6184645	4187	3,621903
4122	3,6151080	4155	3,6185710	4188	3,622006
4123	3,6152133	4156	3,6186755	4189	3,622110
4124	3,6153187	4157	3,6187800	4190	3,622214
4125	3,6154240	4158	3,6188845	4191	3,622317
4126	3,6155292	4159	3,6189889	4192	3,622421
4127	3,6156345	4160	3,6190933	4193	3,622524
4128	3,6157397	4161	3,6191977	4194	3,622628
4129	3,6158449	4162	3,6193021	4195	3,622732
4130	3,6159501	4163	3.6194064	4196	3,622835
4131	3,6160552	4164	3,6195107	4197	3,622939
4132	3,6161603	4165	3,6196150	4198	3,623042
4133	3,6162654	4166	3.6197193	4199	3.623145
4134	3,6163705	4167	3.6198235	4200	3,623249

420

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
4201	3,6233527	4234	3,6267509	4267	3,6301226
4202	3,6234560	4235	3,6268534	4268	3,6302244
4203	3,6235594	4236	3,6269559	4269	3,6303262
4204	3,6236627	4237	3,6270585	4270	3,6304279
4205	3,6237660	4238	3,6271610	4271	3,6305296
4206	3,6238693	4239	3,6272634	4272	3,6306312
4207	3,6239725	4240	3,6273659	4273	3,6307329
4208	3,6240757	4241	3,6274683	4274	3,6308345
4209	3,6241789	4242	3,6275707	4275	3,6309361
4210	3,6242821	4243	3,6276730	4276	3,6310377
4211	3,6243852	4244	3,6277754	4277	3,6311392
4212	3,6244884	4245	3,6278777	4278	3,6312408
4213	3,6245915	4246	3,6279800	4279	3,6313423
4214	3,6246945	4247	3,6280823	4280	3,6314438
4215	3,6247976	4248	3,6281845	4281	3,6315452
4216	3,6249006	4249	3,6282867	4282	3,6316467
4217	3,6250036	4250	3,6283889	4283	3,6317481
4218	3,6251066	4251	3,6284911	4284	3,6318495
4219	3,6252095	4252	3,6285933	4285	3,6319508
4220	3,6253124	4253	3,6286954	4286	3,6320522
4221	3,6254153	4254	3,6287975	4287	3,6321535
4222	3,6255182	4255	3,6288996	4288	3,6322548
4223	3,6256211	4256	3,6290016	4289	3,6323560
4224	3,6257239	4257	3,6291036	4290	3,6324573
4225	3,6258267	4258	3,6292057	4291	3,6325585
4226	3,6259295	4259	3,6293076	4292	3,6326597
4227	3,6260322	4260	3,6294096	4293	3,6327609
4228	3,6261350	4261	3,6295115	4294	3,6328620
4229	3,6262377	4262	3,6296134	4295	3,6329632
4230	3,6263404	4263	3,6297153	4296	3,6330643
231	3,6264430	4264	3,6298172	4297	3,6331653
232	3,6265457	4265	3,6299190	4298	3,6332664
233	3,6266483	4266	3,6300208	4299	3,6333674
234	3,6267509	4267	3,6301226	4300	3,6334685

N.	Logarith	N.	Logarith	N.	Logarith
4301	3,6335694	4334	3,6368889	4367	3,6401832
4302	3,6336704	4335	3,6369891	4368	3,6402826
4303	3,6337713	4336	3,6370893	4369	3,6403820
4304	3,6338723	4337	3,6371894	4370	3,6404814
4305	3,6339732	4338	3,6372895	4371	3,6405808
4306	3,6340740	4339	3,6373896	4372	3,6406802
4307	3,6341749	4340	3,6374897	4373	3,6407795
4308	3,6342757	4341	3,6375898	4374	3,6408788
4309	3,6343765	4342	3,6376898	4375	3,6409781
4310	3,6344773	4343	3,6377898	4376	3,6410773
4311	3,6345780	4344	3,6378898	4377	3,6411765
4312	3,6346788	4345	3,6379898	4378	3,6412758
4313	3,6347795	4346	3,6380897	4379	3,6413749
4314	3,6348801	4347	3,6381896	4380	3,6414741
4315	3,6349808	4348	3,6382895	4381	3,6415733
4316	3,6350814	4349	3,6383894	4382	3,6416724
4317	3,6351820	4350	3,6384893	4383	3,6417715
4318	3,6352826	4351	3,6385891	4384	3,6418705
4319	3,6353832	4352	3,6386889	4385	3,6419696
4320	3,6354837	4353	3,6387887	4386	3,6420686
4321	3,6355843	4354	3,6388884	4387	3,6421676
4322	3,6356848	4355	3,6389882	4388	3,6422666
4323	3,6357852	4356	3,6390879	4389	3,6423656
4324	3,6358857	4357	3,6391876	4390	3,6424645
4325	3,6359861	4358	3,6392872	4391	3,6425634
4326	3,6360865	4359	3,6393869	4392	3,6426623
4327	3,6361869	4360	3,6394865	4393	3,6427612
4328	3,6362872	4361	3,6395861	4394	3,6428601
4329	3,6363876	4362	3,6396857	4395	3,6429589
4330	3,6364879	4363	3,6397852	4396	3,6430577
4331	3,6365882	4364	3,6398847	4397	3,6431565
4332	3,6366884	4365	3,6399842	4398	3,6432552
4333	3,6367887	4366	3,6400837	4399	3,6433540
4334	3,6368889	4367	3,6401832	4400	3,6434527

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
4401	3,6435514	4434	3,6467957	4467	3,6500160
4402	3,6436500	4435	3,6468936	4468	3,6501132
4403	3,6437487	4436	3,6469915	4469	3,6502104
4404	3.6438473	4437	3,6470894	4470	3,6503075
4405	3.6439459	4438	3,6471873	4471	3,6504047
4406	3,6440445	4439	3,6472851	4472	3,6505018
4407	3,6441430	4440	3,6473830	4473	3,6505989
4408	3,6442416	4441	3.6474808	4474	3,6506960
4409	3,6443401	4442	3,6475785	4475	3,6507930
4410	3,6444386	4443	3,6476763	4476	3.6508901
4411	3,6445371	4444	3,6477740	4477	3,6509871
4412	3,6446355	4445	3,6478718	4478	3,6510841
4413	3,6447339	4446	3,6479695	4479	3,6511811
4414	3.6448323	4447	3,6480671	4480	3,6512780
4415	3,6449307	4448	3,6481648	4481	3,6513749
4416	3,6450291	4449	3.6482624	4482	3,6514719
4417	3,6451274	4450	3,6483600	4483	3,6515687
4418	3.6452257	4451	3,6484576	4484	3,6516656
4419	3,6453240	4452	3,6485552	4485	3,6517624
4420	3,6454223	4453	3,6486527	4486	3,6518593
4421	3,6455205	4454	3,6487502	4487	3,6519561
4422	3,6456187	4455	3,6488477	4488	3,6520528
4423	3,6457169	4456	3.6489452	4489	3,6521496
4424	3,6458151	4457	3,6490426	4490	3,6522463
4425	3,6459133	4458	3,6491401	4491	3,6523430
4426	3,6460114	4459	3.6492375	4492	3,6524397
4427	3,6461095	4460	3,6493349	4493	3,6525364
4428	3,6462076	4461	3,6494322	4494	3,6526331
4429	3.6463057	4462	3,6495296	4495	3,6527297
4430	3.6464037	4463	3,6496269	4496	3,6528263
4431	3,6465017	4464	3,6497242	4497	3,6529229
4432	3,6465997	4465	3,6498215	4498	3.6530195
4433	3,6466977	4466	3,6499187	4499	3,6531160
4434	3,6467957	4467	3,6500160	4500	3,6532125

N.	Logarith	N.	Logarith	N.	Logarith
4501	3,6533090	4534	3,6564815	4567	3,6596310
4502	3,6534055	4535	3,6565773	4568	3,6597261
4503	3,6535019	4536	3,6566730	4569	3,6598212
4504	3,6535984	4537	3,6567688	4570	3,6599162
4505	3,6536948	4538	3.6568645	4571	3,6600112
4506	3,6537912	4539	3,6569602	4572	3,6601062
4507	3,6538876	4540	3,6570559	4573	3,6602012
4508	3,6539839	4541	3,6571515	4574	3,6602962
4509	3,6540802	4542	3,6572471	4575	3,6603911
4510	3,6541765	4543	3,6573427	4576	3,6604860
4511	3,6542728	4544	3,6574383	4577	3,6605809
4512	3,6543691	4545	3,6575339	4578	3,6606758
4513	3,6544653	4546	3,6576294	4579	3,6607706
4514	3,6545616	4547	3.6577250	4580	3,6608655
4515	3,6546578	4548	3,6578205	4581	3,6609603
4516	3,6547539	4549	3,6579159	4582	3.6610551
4517	3,6548501	4550	3,6580114	4583	3,6611499
4518	3,6549462	4551	3.6581068	4584	3,6612446
4519	3,6550423	4552	3,6582023	4585	3,6613393
4520	3,6551384	4553	3,6582976	4586	3,6614340
4521	3,6552345	4554	3,6583930	4587	3,6615287
4522	3,6553306	4555	3,6584884	4588	3,6616234
4523	3,6554266	4556	3,6585837	4589	3.6617181
4524	3,6555226	4557	3,6586790	4590	3,6618127
4525	3,6556186	4558	3,6587743	4591	3,6619073
4526	3,6557145	4559	3,6588696	4592	3.6620019
4527	3,6558105	4560	3,6589648	4593	3,6620964
4528	3,6559064	4561	3,6590601	4594	3,6621910
4529	3,6560023	4562	3,6591553	4595	3,6622855
4530	3,6560982	4563	3.6592505	4596	3,6623800
4531	3,6561941	4564	3,6593456	4597	3,6624745
4532	3.6562899	4565	3,6594408	4598	3,6625690
4533	3,6563857	4566	3,6595359	4599	3,6626634
4534	3,6564815	4567	3,6596310	4600	3,6627578

N.	Logarith	N.	Logarith	N.	Logarith
601	3,6628522	4634	3,6659560	4667	3,6690378
602	3,6629466	4635	3,6660497	4668	3,6691308
603	3,6630410	4636	3,6661434	4669	3,6692239
604	3,6631353	4637	3,6662371	4670	3,6693169
605	3,6632296	4638	3,6663307	4671	3,6694099
606	3,6633239	4639	3,6664244	4672	3,6695028
607	3,6634182	4640	3,6665180	4673	3,6695958
608	3,6635125	4641	3,6666116	4674	3,6696887
609	3,6636067	4642	3,6667051	4675	3,6697816
610	3,6637009	4643	3,6667987	4676	3.6698745
611	3,6637951	4644	3.6668922	4677	3,6699674
612	3,6638893	4645	3,6669857	4678	3,6700602
613	3,6639835	4646	3,6670792	4679	3,6701530
614	3,6640776	4647	3,6671727	4680	3,6702459
615	3,6641717	4648	3,6672661	4681	3,6703386
616	3,6642658	4649	3,6673595	4682	3,6704314
617	3.6643599	4650	3,6674530	4683	3,6705242
618	3,6644539	4651	3,6675463	4684	3,6706169
619	3,6645480	4652	3,6676397	4685	3,6707096
620	3,6646420	4653	3,6677331	4686	3,6708023
621	3,6647360	4654	3,6678264	4687	3,6708950
622	3,6648299	4655	3,6679197	4688	3,6709876
623	3,6649239	4656	3,6680130	4689	3.6710802
624	3,6650178	4657	3,6681062	4690	3,6711728
625	3,6651117	4658	3,6681995	4691	3.6712654
626	3,6652056	4659	3.6682927	4692	3,6713580
627	3,6652995	4660	3,6683859	4693	3.6714506
628	3,6653933	4661	3,6684791	4694	3.6715431
629	3,6654872	4662	3,6685723	4695	3.6716356
630	3,6655810	4663	3,6686654	4696	3,6717281
631	3,6656748	4664	3,6687585	4697	3,6718206
632	3,6657685	4665	3,6688516	4698	3,6719130
633	3.6658623	4666	3,6689447	4699	3,6720054
634	3,6659560	4667	3.6690378	4700	3,6720979

N.	Logarith	N.	Logarith	N.	Logarith
4701	3,6721903	4734	3,6752283	4767	3,678245
4702	3,6722826	4735	3,6753200	4768	3,678336
4703	3,6723750	4736	3,6754117	4769	3,678427
4704	3,6724673	4737	3,6755034	4770	3,678518
4705	3,6725596	4738	3,6755951	4771	3,678609
4706	3,6726519	4739	3,6756867	4772	3,678700
4707	3,6727442	4740	3,6757783	4773	3,678791
4708	3,6728365	4741	3,6758700	4774	3,678882
4709	3,6729287	4742	3,6759615	4775	3,678973
4710	3,6730209	4743	3,6760531	4776	3,679064
4711	3,6731131	4744	3,6761447	4777	3,679155
4712	3,6732053	4745	3,6762362	4778	3,679246
4713	3.6732974	4746	3,6763277	4779	3,679337
4714	3,6733896	4747	3,6764192	4780	3,679427
4715	3,6734817	4748	3,6765107	4781	3,679518
4716	3,6735738	4749	3,6766022	4782	3,679609
4717	3,6736659	4750	3,6766936	4783	3,679700
4718	3,6737579	4751	3.6767850	4784	3,679791
4719	3,6738500	4752	3,6768764	4785	3,679881
4720	3,6739420	4753	3,6769678	4786	3,679972
4721	3,6740340	4754	3,6770592	4787	3,680063
4722	3,6741260	4755	3,6771505	4788	3,680154
4723	3,6742179	4756	3,6772418	4789	3,680244
4724	3,6743099	4757	3,6773332	4790	3,680335
4725	3,6744018	4758	3.6774244	4791	3.680426
4726	3,6744937	4759	3,6775157	4792	3,680516
4727	3,6745856	4760	3,6776069	4793	3,680607
4728	3,6746775	4761	3,6776982	4794	3,680698
4729	3,6747693	4762	3,6777894	4795	3,680788
4730	3,6748611	4763	3,6778806	4796	3,680879
4731	3,6749529	4764	3,6779718	4797	3,680969
4732	3,6750447	4765	3,6780629	4798	3,681060
4733	3,6751365	4766	3,6781540	4799	3,681150
4734	3,6752283	4767	3,6782452	4800	3,681241

N.	Logarith	N.	Logarith	N.	Logarith
801	3,6813317	4834	3,6843066	4867	3,6872613
802	3,6814222	4835	3,6843965	4868	3,6873506
803	3,6815126	4836	3,6844863	4869	3,6874398
804	3,6816030	4837	3,6845761	4870	3,6875290
805	3,6816934	4838	3,6846659	4871	3,6876181
806	3,6817838	4839	3,6847556	4872	3,6877073
807	3,6818741	4840	3,6848454	4873	3,6877964
808	3,6819645	4841	3,6849351	4874	3,6878855
809	3,6820548	4842	3,6850248	4875	3,6879746
810	3,6821451	4843	3,6851145	4876	3,6880637
811	3,6822354	4844	3,6852041	4877	3,6881528
812	3.6823256	4845	3,6852938	4878	3,6882418
813	3,6824159	4846	3,6853834	4879	3,6883308
814	3,6825061	4847	3.6854730	4880	3,6884198
815	3,6825963	4848	3,6855626	4881	3,6885088
816	3,6826865	4849	3,6856522	4882	3.6885978
817	3,6827766	4850	3,6857417	4883	3,6886867
818	3,6828668	4851	3,6858313	4884	3,6887756
819	3,6829569	4852	3,6859208	4885	3.6888646
820	3.6830470	4853	3,6860103	4886	3,6889535
821	3,6831371	4854	3,6860998	4887	3,6890423
822	3,6832272	4855	3,6861892	4888	3,6891312
823	3,6833173	4856	3,6862787	4889	3,6892200
824	3,6834073	4857	3.6863681	4890	3,6893089
825	3.6834973	4858	3,6864575	4891	3,6893977
826	3,6835873	4859	3,6865469	4892	3,6894864
4827	3,6836773	4860	3,6866363	4893	3,6895752
4828	3,6837673	4861	3,6867256	4894	3,6896640
4829	3,6838572	4862	3,6868149	4895	3,6897527
4830	3,6839471	4863	3,6869043	4896	3,6898414
4831	3,6840370	4864	3,6869936	4897	3.6899301
4832	3,6841269	4865	3,6870828	4898	3,6900188
4833	3,6842168	4866	3,6871721	4899	3,6901074
4384	3,6843066	4867	3,6872613	4900	3,6901961

N.	Logarith	N.	Logarith	N.	Logarith
4901	3,6902847	4934	3,6931991	4967	3,6960942
4902	3,6903733	4935	3,6932872	4968	3,6961816
4903	3,6904619	4936	3,6933752	4969	3,6962690
4904	3,6905505	4937	3,6934631	4970	3,6963564
4905	3,6906390	4938	3,6935511	4971	3,6964438
4906	3,6907275	4939	3,6936390	4972	3,6965311
4907	3,6908161	4940	3,6937269	4973	3,6966185
4908	3,6909046	4941	3,6938148	4974	3,6967058
4909	3,6909930	4942	3,6939027	4975	3,6967931
4910	3,6910815	4943	3,6939906	4976	3,6968804
4911	3,6911699	4944	3,6940785	4977	3,6969676
4912	3.6912584	4945	3,6941663	4978	3,6970549
4913	3,6913468	4946	3,6942541	4979	3,6971421
4914	3,6914352	4947	3,6943419	4980	3,6972293
4915	3,6915235	4948	3,6944297	4981	3,6973165
4916	3,6916119	4949	3,6945174	4982	3,6974037
4917	3,6917002	4950	3,6946052	4983	3,6974909
4918	3,6917885	4951	3,6946929	4984	3,6975780
4919	3,6918768	4952	3,6947806	4985	3,6976652
4920	3.6919651	4953	3,6948683	4986	3,6977523
4921	3,6920534	4954	3,6949560	4987	3,6978394
4922	3,6921416	4955	3,6950437	4988	3,6979264
4923	3,6922298	4956	3,6951313	4989	3,6980135
4924	3,6923180	4957	3,6952189	4990	3,6981005
4925	3,6924062	4958	3,6953065	4991	3,6981876
4926	3,6924944	4959	3,6953941	4992	3,6982746
4927	3,6925826	4960	3,6954817	4993	3,6983616
4928	3,6926707	4961	3,6955692	4994	3,6984485
4929	3,6927588	4962	3,6956568	4995	3,6985355
4930	3.6928469	4963	3,6957443	4996	3,6986224
4931	3,6929350	4964	3,6958318	4997	3,6987093
4932	3,6930231	4965	3,6959193	4998	3,6987963
4933	3,6931111	4966	3,6960067	4999	3,6988831
4934	3,6931991	4967	3,6960942	5000	3,6989700

J.	Logartih	N.	Logarith	N.	Logarith
01	3,6990569	5034	3,7019132	5067	3,7047509
02	3,6991437	5035	3,7019995	5068	3,7048366
03	3,6992305	5036	3,7020857	5069	3,7049223
04	3.6993173	5037	3,7021719	5070	3,7050080
05	3,6994041	5038	3,7022582	5071	3,7050936
06	3,6994908	5039	3,7023444	5072	3,7051792
07	3,6995776	5040	3,7024305	5073	3,7052649
08	3,6996643	5041	3,7025167	5074	3,7053505
09	3,6997510	5042	3,7026028	5075	3,7054360
10	3,6998377	5043	3,7026890	5076	3.7055216
11	3,6999244	5044	3,7027751	5077	3,7056072
12	3,7000111	5045	3,7028612	5078	3.7056927
13	3,7000977	5046	3,7029472	5079	3,7057782
14	3,7001843	5047	3,7030333	5080	3,7058637
15	3,7002709	5048	3,7031193	5081	3,7059492
16	3,7003575	5049	3,7032054	5082	3,7060347
17	3,7004441	5050	3,7032914	5083	3,7061201
18	3,7005307	5051	3,7033774	5084	3,7062055
19	3,7006172	5052	3.7034633	5085	3,7062910
20	3,7007037	5053	3,7035493	5086	3,7063764
21	3,7007902	5054	3,7036352	5087	3,7064617
22	3,7008767	5055	3,7037212	5088	3,7065471
23	3,7009632	5056	3,7038071	5089	3,7066324
24	3.7010496	5057	3,7038929	5090	3,7067178
25	3,7011361	5058	3,7039788	5091	3,7068031
26	3,7012225	5059	3,7040647	5092	3,7068884
27	3,7013089	5060	3,7041505	5093	3,7069737
28	3,7013953	5061	3,7042363	5094	3,7070589
29	3,7014816	5062	3,7043221	5095	3,7071442
030	3,7015680	5063	3,7044079	5096	3,7072294
031	3,7016543	5064	3,7044937	5097	3,7073146
032	3,7017406	5065	3,7045794	5098	3,7073998
033	3,7018269	5066	3,7046652	5099	3,7074850
034	3,7019132	5067	3,7047509	5100	3,7075702

N.	Logarith	N.	Logarith	N.	Logarit
5101	3,7076553	5134	3,7104559	5167	3,713238
5102	3,7077405	5135	3,7105404	5168	3,713322
5103	3,7078256	5136	3,7106250	5169	3,713406
5104	3,7079107	5137	3,7107096	5170	3,713490
5105	3,7079957	5138	3,7107941	5171	3,713574
5106	3,7080808	5139	3,7108786	5172	3,713658
5107	3,7081659	5140	3,7109631	5173	3,713742
5108	3,7082509	5141	3,7110476	5174	3,713826
5109	3,7083359	5142	3,7111321	5175	3,713910
5110	3,7084209	5143	3,7112165	5176	3,713994
5111	3,7085059	5144	3,7113010	5177	3,714078
5112	3,7085908	5145	3,7113854	5178	3,714162
5113	3,7086758	5146	3,7114698	5179	3,714245
5114	3,7087607	5147	3,7115542	5180	3,714329
5115	3,7088456	5148	3,7116385	5181	3,714413
5116	3,7089305	5149	3,7117229	5182	3,714497
5117	3,7090154	5150	3,7118072	5183	3,714581
5118	3,7091003	5151	3,7118915	5184	3,714665
5119	3,7091851	5152	3,7119759	5185	3,714748
5120	3,7092700	5153	3,7120601	5186	3,714832
5121	3,7093548	5154	3,7121444	5187	3,714916
5122	3,7094396	5155	3,7122287	5188	3,715000
5123	3,7095244	5156	3,7123129	5189	3,715083
5124	3,7096091	5157	3,7123971	5190	3,715167
5125	3,7096939	5158	3,7124813	5191	3.715251
5126	3,7097786	5159	3,7125655	5192	3.715334
5127	3,7098633	5160	3,7126497	5193	3,715418
5128	3,7099480	5161	3,7127339	5194	3,715501
5129	3,7100327	5162	3,7128180	5195	3,715585
5130	3,7101174	5163	3,7129021	5196	3,715669
5131	3,7102020	5164	3,7129862	5197	3,715752
5132	3.7102866	5165	3,7130703	5198	3,715836
5133	3,7103713	5166	3,7131544	5199	3,7159198
5134	3,7104559	5167	3,7132385	5200	3,7160033

N.	Logarith	N.	Logarith	N.	Logarith
5201	3.7160869	5234	3.7188337	5267	3.7215633
5202	3.7161703	5235	3.7189167	5268	3.7216458
5203	3.7162538	5236	3.7189996	5269	3.7217282
5204	3.7163373	5237	3.7190826	5270	3.7218106
5205	3.7164207	5238	3.7191655	5271	3.7218930
5206	3.7165042	5239	3.7192484	5272	3.7219754
5207	3.7165876	5240	3.7193313	5273	3.7220578
5208	3.7166710	5241	3.7194142	5274	3.7221401
5209	3.7167544	5242	3.7194970	5275	3.7222225
5210	3.7168377	5243	3.7195799	5276	3.7223048
5211	3.7169211	5244	3.7196627	5277	3.7223871
5212	3.7170044	5245	3.7197455	5278	3.7224694
5213	3.7170877	5246	3.7198283	5279	3.7225517
5214	3.7171710	5247	3.7199111	5280	3.7226339
5215	3.7172543	5248	3.7199938	5281	3.7227162
5216	3.7173376	5249	3.7200766	5282	3.7227984
5217	3.7174208	5250	3.7201593	5283	3.7228806
5218	3.7175041	5251	3.7202420	5284	3.7229628
5219	3.7175873	5252	3.7203247	5285	3.7230450
5220	3.7176705	5253	3.7204074	5286	3.7231272
5221	3.7177537	5254	3.7204901	5287	3.7232093
5222	3.7178369	5255	3.7205727	5288	3.7232914
5223	3.7179200	5256	3.7206554	5289	3.7233736
5224	3.7180032	5257	3.7207380	5290	3.7234557
5225	3.7180863	5258	3.7208206	5291	3.7235378
5226	3.7181694	5259	3.7209032	5292	3.7236198
5227	3.7182525	5260	3.7209857	5293	3.7237019
5228	3.7183356	5261	3.7210683	5294	3.7237839
5229	3.7184186	5262	3.7211508	5295	3.7238660
5230	3.7185017	5263	3.7212334	5296	3.7239480
5231	3.7185847	5264	3.7213159	5297	3.7240300
5232	3.7186677	5265	3.7213984	5298	3.7241120
5233	3.7187507	5266	3.7214809	5299	3.7241939
5234	3.7188337	5267	3.7215633	5300	3.7242759

N.	Logarith	N.	Logarith	N.	Logarith
5301	3.7243578	5334	3.7270530	5367	3.7297316
5302	3.7244397	5335	3.7271344	5368	3.7298125
5303	3.7245216	5336	3.7272158	5369	3.7298934
5304	3.7246035	5337	3.7272972	5370	3.7299743
5305	3.7246854	5338	3.7273786	5371	3.7300551
5306	3.7247672	5339	3.7274599	5372	3.7301360
5307	3.7248491	5340	3.7275413	5373	3.7302168
5308	3.7249309	5341	3.7276226	5374	3.7302977
5309	3.7250127	5342	3.7277039	5375	3.7303785
5310	3.7250945	5343	3.7277852	5376	3.7304593
5311	3.7251763	5344	3.7278664	5377	3.7305400
5312	3.7252581	5345	3.7279477	5378	3.7306208
5313	3.7253398	5346	3.7280290	5379	3.7307015
5314	3.7254215	5347	3.7281102	5380	3.7307823
5315	3.7255033	5348	3.7281914	5381	3.7308630
5316	3.7255850	5349	3.7282726	5382	3.7309437
5317	3.7256667	5350	3.7283538	5383	3.7310244
5318	3.7257483	5351	3.7284349	5384	3.7311051
5319	3.7258300	5352	3.7285161	5385	3.7311857
5320	3.7259116	5353	3.7285972	5386	3.7312663
5321	3.7259933	5354	3.7286784	5387	3.7313470
5322	3.7260749	5355	3.7287595	5388	3.7314276
5323	3.7261565	5356	3.7288406	5389	3.7315082
5324	3.7262380	5357	3.7289216	5390	3.7315888
5325	3.7263196	5358	3.7290027	5391	3.7316693
5326	3.7264012	5359	3.7290838	5392	3.7317499
5327	3.7264827	5360	3.7291648	5393	3.7318304
5328	3.7265642	5361	3.7292458	5394	3.7319109
5329	3.7266457	5362	3.7293268	5395	3.7319914
5330	3.7267272	5363	3.7294078	5396	3.7320719
5331	3.7268087	5364	3.7294883	5397	3.7321524
5332	3.7268901	5365	3.7295697	5398	3.7322329
5333	3.7269716	5366	3.7296507	5399	3.7323133
5334	3.7270530	5367	3.7297316	5400	3.7323938

N.	Logarith	N.	Logarith	N.	Logarith
5401	3.7324742	5434	3.7351196	5467	3.7377491
5402	3.7325546	5435	3.7351995	5468	3.7378285
5403	3.7326350	5436	3.7352794	5469	3.7379079
5404	3.7327153	5437	3.7353593	5470	3.7379873
5405	3.7327957	5438	3.7354392	5471	3.7380667
5406	3.7328760	5439	3.7355191	5472	3.7381461
5407	3.7329564	5440	3.7355989	5473	3.7382254
5408	3.7330367	5441	3.7356787	5474	3.7383048
5409	3.7331170	5442	3.7357585	5475	3.7383841
5410	3.7331973	5443	3.7358383	5476	3.7384634
5411	3.7332775	5444	3.7359181	5477	3.7385427
5412	3.7333578	5445	3.7359979	5478	3.7386220
5413	3.7334380	5446	3.7360776	5479	3.7387013
5414	3.7335182	5447	3.7361574	5480	3.7387806
5415	3.7335985	5448	3.7362371	5481	3.7388598
5416	3.7336787	5449	3.7363168	5482	3.7389390
5417	3.7337588	5450	3.7363965	5483	3.7390182
5418	3.7338390	5451	3.7364762	5484	3.7390974
5419	3.7339191	5452	3.7365558	5485	3.7391766
5420	3.7339993	5453	3.7366355	5486	3.7392558
5421	3.7340794	5454	3.7367151	5487	3.7393350
5422	3.7341595	5455	3.7367948	5488	3.7394141
5423	3.7342396	5456	3.7368744	5489	3.7394932
5424	3.7343197	5457	3.7369540	5490	3.7395723
5425	3.7343997	5458	3.7370335	5491	3.7396514
5426	3.7344798	5459	3.7371131	5492	3.7397305
5427	3.7345598	5460	3.7371926	5493	3.7398096
5428	3.7346398	5461	3.7372722	5494	3.7398886
5429	3.7347198	5462	3.7373517	5495	3.7399677
5430	3.7347998	5463	3.7374312	5496	3.7400467
5431	3.7348798	5464	3.7375107	5497	3.7401257
5432	3.7349598	5465	3.7375902	5498	3.7402047
5433	3.7350397	5466	3.7376696	5499	3.7402837
5434	3.7351196	5467	3.7377491	5500	3.7403627

N.	Logarith	N.	Logarith	N.	Logarith
5501	3.7404416	5534	3.7430392	5567	3.7456212
5502	3.7405206	5535	3.7431176	5568	3.7456992
5503	3.7405995	5536	3.7431961	5569	3.7457772
5504	3.7406784	5537	3.7432745	5570	3.7458552
5505	3.7407573	5538	3.7433530	5571	3.7459332
5506	3.7408362	5539	3.7434314	5572	3.7460111
5507	3.7409151	5540	3.7435098	5573	3.7460890
5508	3.7409939	5541	3.7435881	5574	3.7461670
5509	3.7410728	5542	3.7436665	5575	3.7462449
5510	3.7411516	5543	3.7437449	5576	3.7463228
5511	3.7412304	5544	3.7438232	5577	3.7464006
5512	3.7413092	5545	3.7439015	5578	3.7464785
5513	3.7413880	5546	3.7439799	5579	3.7465564
5514	3.7414668	5547	3.7440582	5580	3.7466342
5515	3.7415455	5548	3.7441365	5581	3.7467120
5516	3.7416243	5549	3.7442147	5582	3.7467898
5517	3.7417030	5550	3.7442930	5583	3.7468676
5518	3.7417817	5551	3.7443712	5584	3.7469454
5519	3.7418604	5552	3.7444495	5585	3.7470232
5520	3.7419391	5553	3.7445277	5586	3.7471009
5521	3.7420177	5554	3.7446059	5587	3.7471787
5522	3.7420964	5555	3.7446841	5588	3.7472564
5523	3.7421750	5556	3.7447622	5589	3.7473341
5524	3.7422537	5557	3.7448404	5590	3.7474118
5525	3.7423323	5558	3.7449185	5591	3.7474895
5526	3.7424109	5559	3.7449967	5592	3.7475672
5527	3.7424895	5560	3.7450748	5593	3.7476448
5528	3.7425680	5561	3.7451529	5594	3.7477225
5529	3.7426466	5562	3.7452310	5595	3.7478001
5530	3.7427251	5563	3.7453091	5596	3.7478777
5531	3.7428037	5564	3.7453871	5597	3.7479553
5532	3.7428822	5565	3.7454652	5598	3.7480329
5533	3.7429607	5566	3.7455432	5599	3.7481105
5534	3.7430392	5567	3.7456212	5600	3.7481880

N.	Logarith	N.	Logarith	N.	Logarith
5601	3.7482656	5634	3.7508168	5667	3.7533532
5602	3.7483431	5635	3.7508939	5668	3.7534298
5603	3.7484206	5636	3.7509710	5669	3.7535065
5604	3.7484981	5637	3.7510480	5670	3.7535831
5605	3.7485756	5638	3.7511251	5671	3.7536596
5606	3.7486531	5639	3.7512021	5672	3.7537362
5607	3.7487306	5640	3.7512791	5673	3.7538128
5608	3.7488080	5641	3.7513561	5674	3.7538893
5609	3.7488854	5642	3.7514331	5675	3.7539659
5610	3.7489629	5643	3.7515100	5676	3.7540424
611	3.7490403	5644	3.7515870	5677	3.7541189
612	3.7491177	5645	3.7516639	5678	3.7541954
613	3.7491950	5646	3.7517409	5679	3.7542719
614	3.7492724	5647	3.7518178	5680	3.7543483
615	3.7493498	5648	3.7518947	5681	3.7544248
616	3.7494271	5649	3.7519716	5682	3.7545012
617	3.7495044	5650	3.7520484	5683	3.7545777
618	3.7495817	5651	3.7521253	5684	3.7546541
619	3.7496590	5652	3.7522022	5685	3.7547305
620	3.7497363	5653	3.7522790	5686	3.7548069
621	3.7498136	5654	3.7523558	5687	3.7548832
622	3.7498908	5655	3.7524326	5688	3.7549596
623	3.7499681	5656	3.7525094	5689	3.7550359
624	3.7500453	5657	3.7525862	5690	3.7551123
625	3.7501225	5658	3.7526629	5691	3.7551886
626	3.7501997	5659	3.7527397	5692	3.7552649
627	3.7502769	5660	3.7528164	5693	3.7553412
628	3.7503541	5661	3.7528932	5694	3.7554175
629	3.7504312	5662	3.7529699	5695	3.7554937
630	3.7505084	5663	3.7530466	5696	3.7555700
631	3.7505855	5664	3.7531232	5697	3.7556462
632	3.7506626	5665	3.7531999	5698	3.7557224
633	3.7507398	5666	3.7532766	5699	3.7557987
634	3.7508168	5667	3.7533532	5700	3.7558749

N.	Logarith	N.	Logarith	N.	Logarith
5701	3.7559510	5734	3.7584577	5767	3.7609500
5702	3.7560272	5735	3.7585334	5768	3.7610253
5703	3.7561034	5736	3.7586091	5769	3.7611005
5704	3.7561795	5737	3.7586848	5770	3.7611758
5705	3.7562556	5738	3.7587605	5771	3.7612511
5706	3.7563318	5739	3.7588362	5772	3.7613263
5707	3.7564079	5740	3.7589119	5773	3.7614016
5708	3.7564840	5741	3.7589875	5774	3.7614768
5709	3.7565600	5742	3.7590632	5775	3.7615520
5710	3.7566361	5743	3.7591388	5776	3.7616272
5711	3.7567122	5744	3.7592144	5777	3.7617024
5712	3.7567882	5745	3.7592900	5778	3.7617775
5713	3.7568642	5746	3.7593656	5779	3.7618527
5714	3.7569402	5747	3.7594412	5780	3.7619278
5715	3.7570162	5748	3.7595168	5781	3.7620030
5716	3.7570922	5749	3.7595923	5782	3.7620781
5717	3.7571682	5750	3.7596678	5783	3.7621532
5718	3.7572441	5751	3.7597434	5784	3.7622283
5719	3.7573201	5752	3.7598189	5785	3.7623034
5720	3.7573960	5753	3.7598944	5786	3.7623784
5721	3.7574719	5754	3.7599699	5787	3.7624535
5722	3.7575479	5755	3.7600453	5788	3.7625285
5723	3.7576237	5756	3.7601208	5789	3.7626035
5724	3.7576996	5757	3.7601962	5790	3.7626786
5725	3.7577755	5758	3.7602717	5791	3.7627536
5726	3.7578513	5759	3.7603471	5792	3.7628286
5727	3.7579272	5760	3.7604225	5793	3.7629035
5728	3.7580030	5761	3.7604979	5794	3.7629785
5729	3.7580788	5762	3.7605733	5795	3.7630534
5730	3.7581546	5763	3.7606486	5796	3.7631284
5731	3.7582304	5764	3.7607240	5797	3.7632033
5732	3.7583062	5765	3.7607993	5798	3.7632782
5733	3.7583819	5766	3.7608746	5799	3.7633531
5734	3.7584577	5767	3.7609500	5800	3.7634280

N.	Logarith	N.	Logarith	N.	Logarith
5801	3.7635029	5834	3.7659664	5867	3.7684161
5802	3.7635777	5835	3.7660409	5868	3.7684901
5803	3.7636526	5836	3.7661153	5869	3.7685641
5804	3.7637274	5837	3.7661897	5870	3.7686381
5805	3.7638022	5838	3.7662641	5871	3.7687121
5806	3.7638770	5839	3.7663385	5872	3.7687860
5807	3.7639518	5840	3.7664128	5873	3.7688600
5808	3.7640266	5841	3.7664872	5874	3.7689339
5809	3.7641014	5842	3.7665616	5875	3.7690079
5810	3.7641761	5843	3.7666359	5876	3.7690818
5811	3.7642509	5844	3.7667102	5877	3.7691557
5812	3.7643256	5845	3.7667845	5878	3.7692296
5813	3.7644003	5846	3.7668588	5879	3.7693035
5814	3.7644750	5847	3.7669331	5880	3.7693773
5815	3.7645497	5848	3.7670074	5881	3.7694512
5816	3.7646244	5849	3.7670816	5882	3.7695250
5817	3.7646991	5850	3.7671559	5883	3.7695988
5818	3.7647737	5851	3.7672301	5884	3.7696727
5819	3.7648484	5852	3.7673043	5885	3.7697465
5820	3.7649230	5853	3.7673785	5886	3.7698203
5821	3.7649976	5854	3.7674527	5887	3.7698940
5822	3.7650722	5855	3.7675269	5888	3.7699678
5823	3.7651468	5856	3.7676011	5889	3.7700416
5824	3.7652214	5857	3.7676752	5890	3.7701153
5825	3.7652959	5858	3.7677494	5891	3.7701890
826	3.7653705	5859	3.7678235	5892	3.7702627
827	3.7654450	5860	3.7678976	5893	3.7703364
828	3.7655195	5861	3.7679717	5894	3.7704101
829	3.7655941	5862	3.7680458	5895	3.7704838
830	3.7656686	5863	3.7681199	5896	3.7705575
831	3.7657430	5864	3.7681940	5897	3.7706311
832	3.7658175	5865	3.7682680	5898	3.7707048
833	3.7658920	5866	3.7683421	5899	3.7707784
834	3.7659664	5867	3.7684161	5900	3.7708520

N.	Logarith	N.	Logarith	N.	Logarith
5901	3.7709256	5934	3.7733475	5967	3.775756
5902	3.7709992	5935	3.7734207	5968	3.7758288
5903	3.7710728	5936	3.7734939	5969	3.775901
5904	3.7711463	5937	3.7735670	5970	3.7759743
5905	3.7712199	5938	3.7736402	5971	3.776047
5906	3.7712934	5939	3.7737133	5972	3.7761198
5907	3.7713670	5940	3.7737864	5973	3.776192
5908	3.7714405	5941	3.7738596	5974	3.7762652
5909	3.7715140	5942	3.7739326	5975	3.7763379
5910	3.7715875	5943	3.7740057	5976	3.776410
5911	3.7716610	5944	3.7740788	5977	3.776483
5912	3.7717344	5945	3.7741519	5978	3.7765559
5913	3.7718079	5946	3.7742249	5979	3.776628
5914	3.7718813	5947	3.7742979	5980	3.7767012
5915	3.7719547	5948	3.7743710	5981	3.7767738
5916	3.7720282	5949	3.7744440	5982	3.7768464
5917	3.7721016	5950	3.7745170	5983	3.776919
5918	3.7721750	5951	3.7745899	5984	3.776991
5919	3.7722483	5952	3.7746629	5985	3.7770642
5920	3.7723217	5953	3.7747359	5986	3.7771367
5921	3.7723951	5954	3.7748088	5987	3.777209
5922	3.7724684	5955	3.7748818	5988	3.7772818
5923	3.7725417	5956	3.7749547	5989	3.7773543
5924	3.7726150	5957	3.7750276	5990	3.7774268
5925	3.7726884	5958	3.7751005	5991	3.7774993
5926	3.7727616	5959	3.7751734	5992	3.7775718
5927	3.7728349	5960	3.7752463	5993	3.7776443
5928	3.7729082	5961	3.7753191	5994	3.7777167
5929	3.7729814	5962	3.7753920	5995	3.7777892
5930	3.7730547	5963	3.7754648	5996	3.7778616
5931	3.7731279	5964	3.7755376	5997	3.7779340
5932	3.7732011	5965	3.7756104	5998	3.7780065
5933	3.7732743	5966	3.7756832	5999	3.7780789
5934	3.7733475	5967	3.7757560	6000	3.7781512

N.	Logarith	N.	Logarith	N.	Logarith
6001	3.7782236	6034	3.7806053	6067	3.7829740
6002	3.7782960	6035	3.7806773	6068	3.7830456
6003	3.7783683	6036	3.7807492	6069	3.7831171
6004	3.7784407	6037	3.7808212	6070	3.7831887
6005	3.7785130	6038	3.7808931	6071	3.7832602
6006	3.7785853	6039	3.7809650	6072	3.7833318
6007	3.7786576	6040	3.7810369	6073	3.7834033
6008	3.7787299	6041	3.7811088	6074	3.7834748
6009	3.7788022	6042	3.7811807	6075	3.7835463
6010	3.7788745	6043	3.7812526	6076	3.7836178
6011	3.7789467	6044	3.7813245	6077	3.7836892
6012	3.7790190	6045	3.7813963	6078	3.7837607
6013	3.7790912	6046	3.7814681	6079	3.7838321
6014	3.7791634	6047	3.7815400	6080	3.7839036
6015	3.7792356	6048	3.7816118	6081	3.7839750
6016	3.7793078	6049	3.7816836	6082	3.7840464
6017	3.7793800	6050	3.7817554	6083	3.7841178
6018	3.7794522	6051	3.7818272	6084	3.7841892
6019	3.7795243	6052	3.7818989	6085	3.7842606
6020	3.7795965	6053	3.7819707	6086	3.7843319
6021	3.7796686	6054	3.7820424	6087	3.7844033
6022	3.7797408	6055	3.7821141	6088	3.7844746
6023	3.7798129	6056	3.7821859	6089	3.7845460
6024	3.7798850	6057	3.7822576	6090	3.7846173
6025	3.7799571	6058	3.7823293	6091	3.7846886
6026	3.7800291	6059	3.7824010	6092	3.7847599
6027	3.7801012	6060	3.7824726	6093	3.7848312
6028	3.7801732	6061	3.7825443	6094	3.7849024
6029	3.7802453	6062	3.7826159	6095	3.7849737
6030	3.7803173	6063	3.7826876	6096	3.7850450
6031	3.7803893	6064	3.7827592	6097	3.7851162
6032	3.7804613	6065	3.7828308	6098	3.7851874
6033	3.7805333	6066	3.7829024	6099	3.7852586
6034	3.7806053	6067	3.7829740	6100	3.7853298

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarit*
6101	3,7854010	6134	3,7877438	6167	3,790073
6102	3,7854722	6135	3,7878146	6168	3,790144
6103	3,7855434	6136	3,7878853	6169	3,790214
6104	3,7856145	5137	3,7879561	6170	3.790285
6105	3,7856857	6138	3,7880269	6171	3,790355
6106	3,7857568	6139	3,7880976	6172	3,790425
6107	3,7858279	6140	3,7881684	6173	3,790496
6108	3,7858990	6141	3,7882391	6174	3,790566
6109	3,7859701	6142	3,7883098	6175	3,790637
6110	3,7860412	6143	3,7883805	6176	3,790707
6111	3,7861123	6144	3,7884512	6177	3,790777
6112	3,7861833	6145	3,7885219	6178	3,790847
6113	3,7862544	6146	3,7885926	6179	3,790918
6114	3,7863254	6147	3,7886632	6180	3,790988
6115	3,7863965	6148	3,7887339	6181	3,791058
6116	3,7864675	6149	3,7888045	6182	3,791129
6117	3,7865385	6150	3,7888751	6183	3,791199
6118	3,7866095	6151	3,7889457	6184	3,791269
6119	3,7866805	6152	3,7890163	6185	3,791339
6120	3,7867514	6153	3,7890869	6186	3,791409
6121	3,7868224	6154	3,7891575	6187	3,791480
6122	3,7868933	6155	3,7892281	6188	3,791550
6123	3,7869643	6156	3,7892986	6189	3,791620
6124	3.7870352	6157	3,7893691	6190	3.791690
6125	3,7871061	6158	3,7894397	6191	3,791760
6126	3,7871770	6159	3,7895102	6192	3,791830
6127	3,7872479	6160	3,7895807	6193	3,7919011
6128	3,7873188	6161	3,7896512	6194	3,7919712
6129	3,7873896	6162	3,7897217	6195	3,7920413
6130	3,7874605	6163	3,7897922	6196	3,7921114
6131	3,7875313	6164	3,7898626	6197	3,7921815
6132	3,7876021	6165	3,7899331	6198	3,7922516
6133	3,7876730	6166	3,7900035	6199	3,7923216
6134	3,7877438	6167	3,7900739	6200	3,7923917

N.	Logarith	N.	Logarith	N.	Logarith
6201	3,7924617	6234	3,7947668	6267	3,7970597
6202	3,7925318	6235	3,7948365	6268	3,7971290
6203	3,7926018	6236	3,7949061	6269	3,7971983
6204	3,7926718	6237	3,7949757	6270	3,7972675
6205	3,7927418	6238	3,7950454	6271	3,7973368
6206	3,7928118	6239	3,7951150	6272	3,7974060
6207	3,7928817	6240	3,7951846	6273	3,7974753
6208	3,7929517	6241	3,7952542	6274	3,7975445
6209	3,7930217	6242	3,7953238	6275	3,7976137
6210	3,7930916	6243	3,7953933	6276	3,7976829
6211	3,7931615	6244	3,7954629	6277	3,7977521
6212	3,7932314	6245	3,7955324	6278	3,7978213
6213	3,7933014	6246	3,7956020	6279	3,7978905
6214	3,7933712	6247	3,7956715	6280	3,7979596
6215	3,7934411	6248	3,7957410	6281	3,7980288
6216	3,7935110	6249	3,7958105	6282	3,7980979
6217	3,7935809	6250	3,7958800	6283	3,7981671
6218	3,7936507	6251	3,7959495	6284	3,7982362
6219	3,7937206	6252	3,7960190	6285	3,7983053
6220	3,7937904	6253	3,7960884	6286	3,7983744
6221	3,7938602	6254	3,7961579	6287	3,7984435
6222	3,7939300	6255	3,7962273	6288	3,7985125
6223	3,7939998	6256	3,7962967	6289	3,7985816
6224	3,7940696	6257	3,7963662	6290	3,7986506
6225	3,7941394	6258	3,7964356	6291	3,7987197
6226	3,7942091	6259	3,7965050	6292	3,7987887
6227	3,7942789	6260	3,7965743	6293	3,7988577
6228	3,7943486	6261	3,7966437	6294	3,7989267
6229	3,7944183	6262	3,7967131	6295	3,7989957
6230	3,7944880	6263	3,7967824	6296	3,7990647
6231	3,7945578	6264	3,7968517	6297	3,7991337
6232	3,7946274	6265	3,7969211	6298	3,7992027
6233	3,7946971	6266	3,7969904	6299	3,7992716
6234	3,7947668	6267	3,7970597	6300	3,7993405

N.	Logarith	N.	Logarith	N.	Logarith
6301	3,7994095	6334	3,8016781	6367	3,8039348
6302	3,7994784	6335	3,8017466	6368	3,804003
6303	3,7995473	6336	3,8018152	6369	3,804071
6304	3,7996162	6337	3,8018837	6370	3,804139
6305	3,7996851	6338	3,8019522	6371	3,804207
6306	3.7997540	6339	3,8020208	6372	3,8042758
6307	3,7998228	6340	3,8020893	6373	3,8043439
6308	3,7998917	6341	3,8021578	6374	3,804412
6309	3,7999605	6342	3,8022262	6375	3,804480
6310	3,8000294	6343	3,8022947	6376	3,804548
6311	3,8000982	6344	3,8023632	6377	3,804616
6312	3,8001670	6345	3,8024316	6378	3,804684
6313	3,8002358	6346	3,8025001	6379	3,804752
6314	3,8003046	6347	3,8025685	6380	3,804820
6315	3,8003734	6348	3,8026369	6381	3,804888
6316	3,8004421	6349	3,8027053	6382	3,8049568
6317	3,8005109	6350	3,8027737	6383	3,8050248
6318	3,8005796	6351	3,8028421	6384	3.8050929
6319	3,8006484	6352	3,8029105	6385	3,8051609
6320	3,8007171	6353	3,8029789	6386	3,8052289
6321	3,8007858	6354	3,8030472	6387	3,8052969
6322	3,8008545	6355	3.8031156	6388	3,8053649
6323	3,8009232	6356	3,8031839	6389	3,8054329
6324	3,8009919	6357	3,8032522	6390	3,8055009
6325	3,8010605	6358	3,8033205	6391	3,8055688
6326	3,8011292	6359	3,8033888	6392	3,8056368
6327	3,8011978	6360	3.8034571	6393	3,8057047
6328	3,8012665	6361	3.8035254	6394	3,8057726
6329	3,8013351	6362	3,8035937	6395	3,8058405
6330	3,8014037	6363	3.8036619	6396	3,8059085
6331	3,8014723	6364	3,8037302	6397	3,8059763
6332	3,8015409	6365	3,8037984	6398	3,8060442
6333	3,8016095	6366	3,8038666	6399	3,8061121
6334	3,8016781	6367	3,8039348	6400	3,8061800

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
6401	3,8062478	6434	3,8084811	6467	3,8107029
402	3,8063157	6435	3,8085485	6468	3,8107700
403	3,8063835	6436	3,8086160	6469	3,8108371
404	3,8064513	6437	3,8086835	6470	3,8109043
405	3,8065191	6438	3,8087510	6471	3,8109714
406	3,8065869	6439	3,8088184	6472	3,8110385
407	3.8066547	6440	3,8088859	6473	3,8111056
408	3,8067225	6441	3,8089533	6474	3,8111727
409	3,8067903	6442	3,8090207	6475	3,8112398
410	3,8068580	6443	3,8090881	6476	3,8113068
411	3,8069258	6444	3,8091555	6477	3,8113739
412	3,8069935	6445	3,8092229	6478	3,8114409
413	3,8070612	6446	3,8092903	6479	3,8115080
414	3,8071290	6447	3,8093577	6480	3,8115750
415	3.8071967	6448	3,8094250	6481	3,8116420
416	3,8072644	6449	3,8094924	6482	3,8117090
417	3,8073320	6450	3,8095597	6483	3,8117760
418	3,8073997	6451	3,8096270	6484	3,8118430
419	3,8074674	6452	3,8096944	6485	3,8119100
420	3,8075350	6453	3,8097617	6486	3,8119769
421	3,8076027	6454	3,8098290	6487	3,8120439
422	3,8076703	6455	3,8098962	6488	3,8121108
423	3,8077379	6456	3,8099635	6489	3,8121778
424	3,8078055	6457	3,8100308	6490	3,8122447
425	3.8078731	6458	3,8100980	6491	3,8123116
426	3,8079407	6459	3,8101653	6492	3,8123785
427	3,8080083	6460	3,8102325	6493	3,8124454
428	3,8080759	6461	3,8102997	6494	3,8125123
429	3,8081434	6462	3,8103670	6495	3,8125792
430	3,8082110	6463	3,8104342	6496	3,8126460
431	3,8082785	6464	3,8105013	6497	3,8127129
432	3,8083460	6465	3,8105685	6498	3,8127797
433	3,8084136	6466	3,8106357	6499	3,8128465
434	3,8084811	6467	3,8107029	6500	3,8129134

N.	Logarith	N.	Logarith	N.	Logarith
6501	3,8129802	6534	3,8151791	6567	3,8173670
6502	3,8130470	6535	3,8152456	6568	3,8174331
6503	3,8131138	6536	3,8153120	6569	3,8174993
6504	3,8131805	6537	3,8153785	6570	3,8175654
6505	3,8132473	6538	3,8154449	6571	3,8176315
6506	3,8133141	6539	3,8155113	6572	3,8176976
6507	3.8133808	6540	3,8155777	6573	3,8177636
6508	3,8134475	6541	3,8156441	6574	3,8178297
6509	3,8135143	6542	3,8157105	6575	3,8178958
6510	3,8135810	6543	3,8157769	6576	3,8179618
6511	3,8136477	6544	3,8158433	6577	3,8180278
6512	3,8137144	6545	3,8159096	6578	3,8180939
6513	3,8137811	6546	3,8159760	6579	3,8181599
6514	3,8138478	6547	3,8160423	6580	3,8182259
6515	3.8139144	6548	3,8161087	6581	3,8182919
6516	3,8139811	6549	3,8161750	6582	3,8183579
6517	3,8140477	6550	3,8162413	6583	3,8184239
6518	3,8141144	6551	3,8163076	6584	3,8184898
6519	3,8141810	6552	3,8163739	6585	3,8185558
6520	3,8142476	6553	3,8164402	6586	3,8186217
6521	3,8143142	6554	3,8165064	6587	3,8186877
6522	3,8143808	6555	3,8165727	6588	3,8187536
6523	3,8144474	6556	3,8166389	6589	3,8188195
6524	3,8145140	6557	3,8167052	6590	3,8188854
6525	3,8145805	6558	3,8167714	6591	3,8189513
6526	3,8146471	6559	3,8168376	6592	3,8190172
6527	3,8147136	6560	3,8169038	6593	3,8190831
6528	3,8147801	6561	3,8169700	6594	3,8191489
6529	3,8148467	6562	3,8170362	6595	3,8192148
6530	3,8149132	6563	3,8171024	6596	3,8192806
6531	3,8149797	6564	3,8171686	6597	3,8193465
6532	3,8150462	6565	3,8172347	6598	3,8194123
6533	3,8151127	6566	3,8173009	6599	3,8194781
6534	3,8151791	6567	3,8173670	6600	3,8195439

N.	Logarith	N.	Logarith	N.	Logarith
601	3,8196097	6634	3,8217755	6667	3,8239305
602	3,8196755	6635	3,8218409	6668	3,8239956
603	3,8197413	6636	3,8219064	6669	3,8240607
604	3,8198071	6637	3,8219718	6670	3,8241258
605	3,8198728	6638	3,8220372	6671	3,8241909
606	3,8199386	6639	3,8221027	6672	3,8242560
607	3,8200043	6640	3,8221681	6673	3,8243211
608	3,8200700	6641	3,8222335	6674	3,8243862
609	3,8201358	6642	3,8222989	6675	3,8244513
610	3,8202015	6643	3,8223643	6676	3,8245163
611	3,8202672	6644	3,8224296	6677	3,8245814
612	3,8203328	6645	3,8224950	6678	3,8246464
613	3,8203985	6646	3,8225603	6679	3,8247114
614	3,8204642	6647	3,8226257	6680	3,8247765
615	3,8205298	6648	3,8226910	6681	3,8248415
616	3,8205955	6649	3,8227563	6682	3,8249065
617	3,8206611	6650	3,8228216	6683	3,8249715
618	3,8207268	6651	3,8228869	6684	3.8250364
619	3,8207924	6652	3,8229522	6685	3,8251014
620	3,8208580	6653	3,8230175	6686	3,8251664
621	3,8209236	6654	3,8230828	6687	3,8252313
622	3,8209892	6655	3,8231481	6688	3,8252963
623	3,8210548	6656	3,8232133	6689	3,8253612
624	3,8211203	6657	3,8232786	6690	3,8254261
625	3,8211859	6658	3,8233438	6691	3,8254910
626	3,8212514	6659	3,8234090	6692	3,8255559
627	3,8213170	6660	3,8234742	6693	3,8256208
628	3,8213825	6661	3,8235394	6694	3,8256857
629	3,8214480	6662	3,8236046	6695	3,8257506
630	3,8215135	6663	3,8236698	6696	3,8258154
631	3,8215790	6654	3,8237350	6697	3,8258803
632	3,8216445	6665	3,8238002	6698	3,8259451
633	3,8217100	6666	3,8238653	6699	3,8260100
634	3,8217755	6667	3,8239305	6700	3,8260748

N.	Logarith	N.	Logarith	N.	Logarith
6701	3,8261396	6734	3,8282731	6767	3,830396
6702	3,8262044	6735	3,8283376	6768	3,830460
6703	3,8262692	6736	3,8284021	6769	3,830524
6704	3,8263340	6737	3,8284665	6770	3,830588
6705	3,8263988	6738	3,8285310	6771	3,830652
6706	3,8264635	6739	3,8285955	6772	3,830716
6707	3,8265283	6740	3,8286599	6773	3,8307811
6708	3,8265931	6741	3,8287243	6774	3,830845
6709	3,8266578	6742	3,8287887	6775	3,830909
6710	3,8267225	6743	3,8288532	6776	3.830973
6711	3,8267872	6744	3.8289176	6777	3,831037
6712	3,8268519	6745	3,8289820	6778	3,8311011
6713	3,8269166	6746	3,8290463	6779	3,831165
6714	3,8269813	6747	3,8291107	6780	3,831229
6715	3,8270460	6748	3,8291751	6781	3,831293
6716	3,8271107	6749	3,8292394	6782	3,831357
6717	3,8271753	6750	3,8293038	6783	3,8314211
6718	3.8272400	6751	3,8293681	6784	3,831485
6719	3,8273046	6752	3,8294324	6785	3,831549
6720	3,8273693	6753	3,8294967	6786	3,831613
6721	3,8274339	6754	3,8295611	6787	3,831677
6722	3,8274985	6755	3,8296254	6788	3,831741
6723	3,8275631	6756	3,8296896	6789	3,831805
6724	3,8276277	6757	3,8297539	6790	3,831869
6725	3,8276923	6758	3,8298182	6791	3,831933
6726	3,8277569	6759	3,8298824	6792	3,831997
6727	3,8278214	6760	3,8299467	6793	3,8320611
6728	3,8278860	6761	3,8300109	6794	3,832125
6729	3,8279505	6762	3,8300752	6795	3,832189
6730	3,8280151	6763	3,8301394	6796	3,832253
6731	3,8280796	6764	3,8302036	6797	3,832317
6732	3,8281441	6765	3,8302678	6798	3,832381
6733	3,8282086	6766	3,8303320	6799	3,832445
6734	3,8282731	6767	3,8303962	6800	3,832508

N.	Logarith	N.	Logarith	N.	Logarith
801	3,8325728	6834	3,8346750	6867	3,8367670
802	3,8326366	6835	3,8347385	6868	3,8368303
803	3,8327005	6836	3,8348021	6869	3,8368935
804	3,8327643	6837	3,8348656	6870	3,8369567
805	3,8328281	6838	3,8349291	6871	3,8370199
806	3,8328919	6839	3,8349926	6872	3.8370832
807	3,8329558	6840	3,8350561	6873	3,8371463
808	3,8330195	6841	3,8351196	6874	3,8372095
809	3,8330833	6842	3,8351831	6875	3,8372727
810	3,8331471	6843	3,8352465	6876	3,8373359
811	3,8332109	6844	3,8353100	6877	3,8373990
812	3,8332746	6845	3,8353735	6878	3,8374622
813	3,8333384	6846	3,8354369	6879	3,8375253
814	3,8334021	6847	3,8355003	6880	3,8375884
815	3,8334659	6848	3,8355638	6881	3,8376516
816	3,8335296	6849	3,8356272	6882	3,8377147
817	3,8335933	6850	3,8356906	6883	3,8377778
818	3,8336570	6851	3,8357540	6884	3,8378409
819	3,8337207	6852	3,8358174	6885	3,8379039
820	3,8337844	6853	3,8358807	6886	3,8379670
821	3,8338480	6854	3,8359441	6887	3,8380301
822	3,8339117	6855	3,8360075	6888	3,8380931
823	3.8339754	6856	3,8360708	6889	3,8381562
824	3,8340390	6857	3,8361341	6890	3,8382192
825	3,8341027	6858	3,8361975	6891	3,8382822
826	3,8341663	6859	3.8362608	6892	3,8383453
827	3.8342299	6860	3,8363241	6893	3,8384083
828	3,8342935	6861	3,8363874	6894	3,8384713
829	3,8343571	6862	3,8364507	6895	3,8385343
830	3.8344207	6863	3,8365140	6896	3,8385973
831	3,8344843	6864	3,8365773	6897	3,8386602
832	3,8345479	6865	3,8366405	6898	3,8387232
833	3,8346114	6866	3,8367038	6899	3,8387861
34	3,8346750	6867	3.8367670	6900	3,8388491

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
6901	3.8389120	6934	3.8409838	6967	3.8430458
6902	3.8389750	6935	3.8410465	6968	3.8431081
6903	3.8390379	6936	3.8411091	6969	3.8431705
6904	3.8391008	6937	3.8411717	6970	3.8432328
6905	3.8391637	6938	3.8412343	6971	3.8432951
6906	3.8392266	6939	3.8412969	6972	3.8433574
6907	3.8392895	6940	3.8413595	6973	3.8434197
6908	3.8393523	6941	3.8414220	6974	3.8434819
6909	3.8394152	6942	3.8414846	6975	3.8435442
6910	3.8394780	6943	3.8415472	6976	3.8436065
6911	3.8395409	6944	3.8416097	6977	3.8436687
6912	3.8396037	6945	3.8416722	6978	3.8437310
6913	3.8396666	6946	3.8417348	6979	3.8437932
6914	3.8397294	6947	3.8417973	6980	3.8438554
6915	3.8397922	6948	3.8418598	6981	3.8439176
6916	3.8398550	6949	3.8419223	6982	3.8439798
6917	3.8399178	6950	3.8419848	6983	3.8440420
6918	3.8399806	6951	3.8420473	6984	3.8441042
6919	3.8400433	6952	3.8421098	6985	3.8441664
6920	3.8401061	6953	3.8421722	6986	3.8442286
6921	3.8401688	6954	3.8422347	6987	3.8442907
6922	3.8402316	6955	3.8422971	6988	3.8443529
6923	3.8402943	6956	3.8423596	6989	3.8444150
6924	3.8403571	6957	3.8424220	6990	3.8444772
6925	3.8404198	6958	3.8424844	6991	3.8445393
6926	3.8404825	6959	3.8425468	6992	3.8446014
6927	3.8405452	6960	3.8426092	6993	3.8446635
6928	3.8406079	6961	3.8426716	6994	3.8447256
6929	3.8406706	6962	3.8427340	6995	3.8447877
6930	3.8407332	6963	3.8427964	6996	3.8448498
6931	3.8407959	6964	3.8428588	6997	3.8449119
6932	3.8408586	6965	3.8429211	6998	3.8449739
6933	3.8409212	6966	3.8429835	6999	3.8450360
6934	3.8409838	6967	3.8430458	7000	3.8450980

N.	Logarith	N.	Logarith	N.	Logarith
001	3,8451601	7034	3,8472024	7067	3,8492351
002	3,8452221	7035	3,8472641	7068	3,8492965
003	3,8452841	7036	3,8473258	7069	3,8493580
004	3,8453461	7037	3,8473876	7070	3,8494194
005	3,8454081	7038	3,8474493	7071	3,8494808
006	3,8454701	7039	3,8475110	7072	3,8495423
007	3,8455321	7040	3,8475727	7073	3,8496037
008	3,8455941	7041	3,8476343	7074	3,8496651
009	3,8456561	7042	3,8476960	7075	3,8497264
010	3,8457180	7043	3,8477577	7076	3.8497878
011	3,8457800	7044	3,8478193	7077	3,8498492
012	3,8458419	7045	3,8478810	7078	3,8499106
013	3,8459038	7046	3,8479426	7079	3,8499719
014	3,8459658	7047	3,8480043	7080	3.8500333
015	3,8460277	7048	3,8480659	7081	3,8500946
016	3,8460896	7049	3,8481275	7082	3,8501559
017	3,8461515	7050	3,8481891	7083	3,8502172
018	3,8462134	7051	3.8482507	7084	3,8502786
019	3,8462752	7052	3,8483123	7085	3.8503399
020	3,8463371	7053	3,8483739	7086	3,8504011
021	3,8463990	7054	3,8484355	7087	3,8504624
022	3,8464608	7055	3,8484970	7088	3,8505237
023	3,8465227	7056	3,8485586	7089	3,8505850
024	3,8465845	7057	3,8486201	7090	3,8506462
025	3,8466463	7058	3,8486817	7091	3,8507075
026	3,8467081	7059	3,8487432	7092	3,8507687
027	3,8467700	7060	3,8488047	7093	3,8508300
028	3,8468318	7061	3,8488662	7094	3,8508912
029	3,8468935	7062	3,8489277	7095	3,8509524
030	3,8469553	7063	3,8489892	7096	3,8510136
031	3,8470171	7064	3,8490507	7097	3,8510748
032	3,8470789	7065	3,8491122	7098	3,8511360
033	3,8471406	7066	3,8491736	7099	3,8511972
034	3,8472024	7067	3,8492351	7100	3,8512583

N.	Logarith	N.	Logarith	N.	Logarith
7101	3,8513195	7134	3,8533331	7167	3,8553374
7102	3,8513807	7135	3,8533940	7168	3,8553980
7103	3,8514418	7136	3,8534548	7169	3,8554586
7104	3,8515030	7137	3,8535157	7170	3,8555192
7105	3,8515641	7138	3,8535765	7171	3,8555797
7106	3,8516252	7139	3,8536374	7172	3,8556403
7107	3,8516863	7140	3,8536982	7173	3,8557008
7108	3,8517474	7141	3,8537590	7174	3,8557614
7109	3,8518085	7142	3,8538198	7175	3,8558219
7110	3,8518696	7143	3,8538806	7176	3,8558824
7111	3,8519307	7144	3,8539414	7177	3,8559429
7112	3,8519917	7145	3,8540022	7178	3,8560035
7113	3,8520528	7146	3,8540630	7179	3,8560640
7114	3,8521139	7147	3,8541238	7180	3,8561244
7115	3.8521749	7148	3,8541845	7181	3,8561849
7116	3,8522359	7149	3,8542453	7182	3,8562454
7117	3,8522970	7150	3,8543060	7183	3,8563059
7118	3,8523580	7151	3,8543668	7184	3,8563663
7119	3,8524190	7152	3,8544275	7185	3,8564268
7120	3,8524800	7153	3.8544882	7186	3,8564872
7121	3,8525410	7154	3,8545489	7187	3,8565476
7122	3,8526020	7155	3,8546096	7188	3,8566081
7123	3,8526629	7156	3,8546703	7189	3,8566685
7124	3,8527239	7157	3,8547310	7190	3,8567289
7125	3,8527849	7158	3,8547917	7191	3,8567893
7126	3,8528458	7159	3,8548524	7192	3,8568497
7127	3,8529068	7160	3.8549130	7193	3,8569101
7128	3,8529677	7161	3,8549737	7194	3,8569704
7129	3,8530286	7162	3,8550343	7195	3,8570308
7130	3,8530895	7163	3.8550949	7196	3,8570912
7131	3,8531504	7164	3,8551556	7197	3,8571515
7132	3,8532113	7165	3,8552162	7198	3,8572118
7133	3,8532722	7166	3.8552768	7199	3.8572722
7134	3,8533331	7167	3.8553374	7200	3,8573325

N.	Logarith	N.	Logarith	N.	Logarith
7201	3,8573928	7234	3,8593755	7267	3,8613852
7202	3,8574531	7235	3,8594385	7268	3,8614149
7203	3,8575134	7236	3,8594986	7269	3,8614747
7204	3,8575737	7237	3,8595586	7270	3,8615344
7205	3,8576340	7238	3,8596186	7271	3,8615941
206	3,8576943	7239	3,8596786	7272	3,8616539
207	3,8577545	7240	3,8597386	7273	3,8617136
208	3,8578148	7241	3,8597985	7274	3,8617733
209	3,8578750	7242	3,8598585	7275	3,8618330
210	3,8579353	7243	3,8599185	7276	3,8618927
211	3,8579955	7244	3,8599784	7277	3,8619524
212	3,8580557	7245	3,8600384	7278	3,8620120
213	3,8581159	7246	3,8600983	7279	3,8620717
214	3,8581761	7247	3,8601583	7280	3,8621314
215	3,8582363	7248	3,8602182	7281	3,8621910
16	3,8582965	7249	3,8602781	7282	3,8622507
17	3.8583567	7250	3,8603380	7283	3,8623103
18	3,8584169	7251	3,8603979	7284	3,8623699
219	3,8584770	7252	3,8604578	7285	3,8624296
20	3,8585372	7253	3,8605177	7286	3,8624892
21	3,8585973	7254	3,8605776	7287	3,8625488
22	3,8586575	7255	3,8606374	7288	3,8626084
23	3,8587176	7256	3,8606973	7289	3,8626679
24	3,8587777	7257	3,8607571	7290	3,8627275
25	3,8588379	7258	3,8608170	7291	3.8627871
26	3,8588980	7259	3,8608768	7292	3,8628467
27	3,8589581	7260	3,8609366	7293	3,8629062
8	3,8590181	7261	3,8609964	7294	3,8629658
9	3,8590782	7262	3,8610562	7295	3,8630253
0	3,8591383	7263	3,8611160	7296	3,8630848
1	3,8591984	7264	3,8611758	7297	3,8631443
2	3,8592584	7265	3,8612356	7298	3,8632039
3	3,8593185	7266	3,8612954	7299	3,8632634
4	3.8593785	7267	3,8613552	7300	3,8633229

N.	Logarith	N.	Logarith	N.	Logarit
7301	3,8633823	7334	3,8653409	7367	3,867290
7302	3,8634418	7335	3,8654001	7368	3,867349
7303	3,8635013	7336	3,8654593	7369	3,867408
7304	3,8635608	7337	3,8655185	7370	3,867467
7305	3,8636202	7338	3,8655777	7371	3,867526
7306	3,8636797	7339	3,8656369	7372	3,86758
7307	3,8637391	7340	3,8656961	7373	3,867644
7308	3,8637985	7341	3,8657552	7374	3,867703
7309	3,8638580	7342	3,8658144	7375	3,867762
7310	3,8639174	7343	3,8658735	7376	3,86782
7311	3,8639768	7344	3,8659327	7377	3,86787
7312	3,8640362	7345	3,8659918	7378	3,86793
7313	3,8640956	7346	3,8660509	7379	3,86799
7314	3,8641550	7347	3,8661100	7380	3,86805
7315	3,8642143	7348	3,8661691	7381	3,86811
7316	3,8642737	7349	3,8662282	7382	3,86817
7317	3,8643331	7350	3.8662873	7383	3,86823
7318	3,8643924	7351	3,8663464	7384	3,86829
7319	3,8644517	7352	3,8664055	7385	3,86835
7320	3,8645111	7353	3,8664646	7386	3,86840
7321	3,8645704	7354	3,8665236	7387	3,86846
7322	3,8646297	7355	3,8665827	7388	3,86852
7323	3,8646890	7356	3.8666417	7389	3,86858
7324	3,8647483	7357	3,8667008	7390	3,86864
7325	3.8648076	7358	3,8667598	7391	3,86870
7326	3,8648669	7359	3,8668188	7392	3,86876
7327	3,8649262	7360	3,8668778	7393	3,86882
7328	3,8649855	7361	3,8669368	7394	3,86887
7329	3,8650447	7362	3,8669958	7395	3,86893
7330	3,8651040	7363	3,8670548	7396	3,86899
7331	3,8651632	7364	3,8671138	7397	3,8690
7332	3,8652225	7365	3,8671728	7398	3,8691
7333	3,8652817	7366	3,8672317	7399	3,8691
7334	3,8653409	7367	3.8672907	7400	3,8692

N.	Logarith	N.	Logarith	N.	Logarith
7401	3,8692904	7434	3,8712226	7467	3,8731461
7402	3,8693491	7435	3,8712810	7468	3,8732043
7403	3,8694077	7436	3,8713394	7469	3,8732625
7404	3,8694664	7437	3,8713978	7470	3,8733206
7405	3,8695251	7438	3,8714562	7471	3,8733787
7406	3,8695837	7439	3,8715146	7472	3,8734369
7407	3,8696423	7440	3,8715729	7473	3,8734950
7408	3,8697010	7441	3,8716313	7474	3,8735531
7409	3,8697596	7442	3,8716897	7475	3,8736112
7410	3,8698182	7443	3,8717480	7476	3,8736693
411	3,8698768	7444	3,8718064	7477	3,8737274
412	3,8699354	7445	3,8718647	7478	3,8737855
413	3,8699940	7446	3,8719230	7479	3,8738435
414	3,8700526	7447	3,8719814	7480	3,8739016
415	3,8701112	7448	3,8720397	7481	3,8739597
416	3,8701697	7449	3,8720980	7482	3,8740177
417	3,8702283	7450	3,8721563	7483	3,8740757
418	3,8702868	7451	3,8722146	7484	3,8741338
419	3,8703454	7452	3,8722728	7485	3,8741918
420	3,8704039	7453	3,8723311	7486	3,8742498
421	3,8704624	7454	3,8723894	7487	3,8743078
422	3,8705209	7455	3,8724476	7488	3,8743658
423	3,8705795	7456	3,8725059	7489	3,8744238
424	3,8706380	7457	3,8725641	7490	3,8744818
425	3.8706965	7458	3.8726224	7491	3,8745398
426	3,8707549	7459	3,8726806	7492	3,8745978
427	3,8708134	7460	3,8727388	7493	3,8746557
428	3,8708719	7461	3,8727970	7494	3,8747137
429	3,8709304	7462	3,8728552	7495	3,8747716
30	3,8709888	7463	3,8729134	7496	3,8748296
31	3,8710473	7464	3,8729716	7497	3,8748875
32	3,8711057	7465	3,8730298	7498	3,8749454
33	3,8711641	7466	3,8730880	7499	3,8750034
34	3,8712226	7467	3.8731461	7500	3,8750613

N.	Logarith	N.	Logarith	N.	Logarit
7501	3,8751192	7534	3,8770256	7567	3,878923
7502	3,8751771	7535	3,8770833	7568	3,878981
7503	3,8752349	7536	3,8771409	7569	3,879038
7504	3,8752928	7537	3,8771985	7570	3,879095
7505	3,8753507	7538	3,8772561	7571	3,879153
7506	3,8754086	7539	3,8773137	7572	3,87921
7507	3,8754664	7540	3,8773713	7573	3,879268
7508	3,8755243	7541	3,8774289	7574	3,87932
7509	3,8755821	7542	3,8774865	7575	3,87938
7510	3,8756399	7543	3,8775441	7576	3,87944
7511	3,8756978	7544	3,8776017	7577	3.87949
7512	3,8757556	7545	3,8776592	7578	3,87955
7513	3,8758134	7546	3,8777168	7579	3,87961
7514	3,8758712	7547	3,8777743	7580	3,87966
7515	3,8759290	7548	3,8778319	7581	3,87972
7516	3,8759868	7549	3,8778894	7582	3,87978
7517	3,8760445	7550	3,8779469	7583	3,87984
7518	3,8761023	7551	3,8780045	7584	3,87989
7519	3,8761601	7552	3,8780620	7585	3,87995
7520	3,8762178	7553	3,8781195	7586	3,88001
7521	3,8762756	7554	3,8781770	7587	3,88007
7522	3,8763333	7555	3,8782345	7588	3,88012
7523	3,8763911	7556	3,8782919	7589	3,88018
7524	3,8764488	7557	3.8783494	7590	3,88024
7525	3,8765065	7558	3,8784069	7591	3,88029
7526	3,8765642	7559	3,8784643	7592	3,88035
7527	3,8766219	7560	3,8785218	7593	3,88041
7528	3,8766796	7561	3,8785792	7594	3,88047
7529	3,8767373	7562	3,8786367	7595	3,88052
7530	3,8767950	7563	3,8786941	7596	3,88058
7531	3,8768526	7564	3,8787515	7597	3.88064
7532	3,8769103	7565	3,8788089	7598	3,88069
7533	3,8769680	7566	3,8788663	7599	3,88075
7534	3,8770256	7567	3,8789237	7600	3,88081

N.	Logarith	N.	Logarith	N.	Logarith
7601	3,8808707	7634	3,8827522	7667	3,8846255
7602	3,8809279	7635	3,8828090	7668	3,8846821
7603	3,8809850	7636	3,8828659	7669	3,8847387
7604	3,8810421	7637	3,8829228	7670	3,8847954
7605	3,8810992	7638	3,8829797	7671	3,8848520
7606	3,8811563	7639	3,8830365	7672	3,8849086
7607	3,8812134	7640	3,8830934	7673	3,8849652
7608	3,8812705	7641	3,8831502	7674	3,8850218
7609	3,8813276	7642	3,8832070	7675	3,8850784
7610	3,8813847	7643	3,8832639	7676	3,8851350
7611	3,8814417	7644	3,8833207	7677	3,8851915
7612	3,8814988	7645	3,8833775	7678	3,8852481
7613	3,8815558	7646	3,8834343	7679	3,8853047
7614	3,8816129	7647	3,8834911	7680	3,8853612
615	3,8816699	7648	3,8835479	7681	3,8854178
616	3,8817269	7649	3,8836047	7682	3,8854743
617	3,8817840	7650	3,8836614	7683	3,8855308
618	3,8818410	7651	3,8837182	7684	3,8855874
619	3,8818980	7652	3,8837750	7685	3,8856439
620	3,8819550	7653	3,8838317	7686	3,8857004
621	3,8820120	7654	3,8838885	7687	3,8857569
622	3,8820689	7655	3,8839452	7688	3,8858134
623	3,8821259	7656	3,8840019	7689	3,8858699
624	3,8821829	7657	3,8840586	7690	3,8859263
625	3,8822398	7658	3,8841154	7691	3,8859828
626	3,8822968	7659	3,8841721	7692	3,8860393
627	3,8823537	7660	3,8842288	7693	3,8860957
628	3,8824107	7661	3,8842855	7694	3,8861522
629	3,8824676	7662	3,8843421	7695	3,8862086
630	3,8825245	7663	3,8843988	7696	3,8862651
31	3,8825815	7664	3,8844555	7697	3,8863215
32	3,8826384	7665	3,8845122	7698	3,8863779
33	3,8826953	7666	3,8845688	7699	3,8864343
34	3,8827522	7667	3,8846255	7700	3,8864907

N.	Logarith	N.	Logarith	N.	Logarith
7701	3,8865471	7734	3,8884042	7767	3,890253
7702	3,8866035	7735	3,8884603	7768	3,890309
7703	3,8866599	7736	3,8885165	7769	3,890365
7704	3,8867163	7737	3,8885726	7770	3,890421
7705	3,8867726	7738	3,8886287	7771	3,890476
7706	3,8868290	7739	3,8886848	7772	3,890532
7707	3,8868854	7740	3,8887410	7773	3,890588
7708	3,8869417	7741	3,8887971	7774	3,890644
7709	3,8869980	7742	3,8888532	7775	3,890700
7710	3,8870544	7743	3,8889093	7776	3,890756
7711	3,8871107	7744	3,8889653	7777	3,890812
7712	3,8871670	7745	3,8890214	7778	3,890867
7713	3,8872233	7746	3,8890775	7779	3,890923
7714	3,8872796	7747	3,8891336	7780	3,890979
7715	3,8873359	7748	3,8891896	7781	3,891035
7716	3,8873922	7749	3,8892457	7782	3,891091
7717	3,8874485	7750	3,8893017	7783	3,891147
7718	3,8875048	7751	3,8893577	7784	3,891202
7719	3,8875610	7752	3,8894138	7785	3,891258
7720	3,8876173	7753	3,8894698	7786	3,891314
7721	3,8876736	7754	3,8895258	7787	3,891370
7722	3,8877298	7755	3,8895818	7788	3,891425
7723	3,8877860	7756	3,8896378	7789	3,891481
7724	3,8878423	7757	3,8896938	7790	3,891537
7725	3,8878985	7758	3,8897498	7791	3,891593
7726	3,8879547	7759	3,8898058	7792	3,891648
7727	3,8880109	7760	3,8898617	7793	3,891704
7728	3,8880671	7761	3,8899177	7794	3,891760
7729	3,8881233	7762	3,8899736	7795	3,891816
7730	3,8881795	7763	3,8900296	7796	3,891871
7731	3,8882357	7764	3,8900855	7797	3,891927
7732	3,8882918	7765	3,8901415	7798	3,891983
7733	3,8883480	7766	3,8901974	7799	3,892038
7734	3,8884042	7767	3,8902533	7800	3,892094

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
7801	3,8921503	7834	3,8939836	7867	3,8958091
7802	3,8922059	7835	3,8940390	7868	3,8958643
7803	3,8922616	7836	3,8940944	7869	3,8959195
7804	3,8923173	7837	3,8941498	7870	3,8959747
7805	3,8923729	7838	3,8942053	7871	3,8960299
7806	3,8924285	7839	3,8942607	7872	3,8960851
7807	3,8924842	7840	3,8943161	7873	3,8961403
7808	3,8925398	7841	3,8943715	7874	3,8961954
7809	3,8925954	7842	3,8944268	7875	3,8962506
7810	3,8926510	7843	3,8944822	7876	3,8963057
7811	3,8927066	7844	3,8945376	7877	3,8963608
7812	3,8927622	7845	3,8945929	7878	3,8964160
7813	3,8928178	7846	3,8946483	7879	3,8964711
7814	3,8928734	7847	3,8947037	7880	3,8965262
7815	3,8929290	7848	3,8947590	7881	3,8965813
7816	3,8929846	7849	3,8948143	7882	3,8966364
7817	3,8930401	7850	3,8948697	7883	3,8966915
7818	3,8930957	7851	3,8949250	7884	3,8967466
7819	3,8931512	7852	3,8949803	7885	3,8968017
7820	3,8932068	7853	3,8950356	7886	3,8968568
7821	3,8932623	7854	3,8950909	7887	3,8969118
7822	3,8933178	7855	3,8951462	7888	3,8969669
7823	3,8933733	7856	3,8952015	7889	3,8970220
7824	3,8934288	7857	3,8952568	7890	3,8970770
7825	3,8934843	7858	3,8953120	7891	3,8971320
7826	3,8935398	7859	3,8953673	7892	3,8971871
7827	3,8935953	7860	3,8954225	7893	3,8972421
7828	3,8936508	7861	3,8954778	7894	3,8972971
7829	3,8937063	7862	3,8955330	7895	3,8973521
7830	3,8937618	7863	3,8955883	7896	3,8974071
7831	3,8938172	7864	3,8956435	7897	3,8974621
7832	3,8938727	7865	3,8956987	7898	3,8975171
7833	3,8939281	7866	3,8957539	7899	3,8975721
7834	3,8939836	7867	3,8958091	7900	3,8976271

N.	Logarith	N.	Logarith	N.	Logarit
7901	3,8976821	7934	3,8994922	7967	3,901294
7902	3,8977370	7935	3,8995469	7968	3,901349
7903	3,8977920	7936	3,8996017	7969	3,901403
7904	3,8978469	7937	3,8996564	7970	3,901458
7905	3.8979019	7938	3,8997111	7971	3,901512
7906	3,8979568	7939	3,8997658	7972	3.901567
7907	3,8980117	7940	3,8998205	7973	3,901621
7908	3,8980667	7941	3,8998752	7974	3,901676
7909	3,8981216	7942	3,8999299	7975	3,901730
7910	3,8981765	7943	3,8999846	7976	3,901785
7911	3,8982314	7944	3,9000392	7977	3,901839
7912	3,8982863	7945	3,9000939	7978	3,901894
7913	3,8983412	7946	3,9001486	7979	3,901948
7914	3,8983960	7947	3,9002032	7980	3,902002
7915	3,8984509	7948	3,9002579	7981	3,902057
7916	3,8985058	7949	3,9003125	7982	3,902111
7917	3,8985606	7950	3,9003671	7983	3,9021661
7918	3,8986155	7951	3,9004218	7984	3,902220
7919	3,8986703	7952	3,9004764	7985	3,902274
7920	3,8987252	7953	3,9005310	7986	3.902329
7921	3,8987800	7954	3,9005856	7987	3,902383
7922	3,8988348	7955	3,9006402	7988	3,9024381
7923	3,8988897	7956	3,9006948	7989	3,9024924
7924	3,8989445	7957	3,9007494	7990	3,9025468
7925	3,8989993	7958	3,9008039	7991	3,9026011
7926	3,8990541	7959	3.9008585	7992	3,9026555
7927	3,8991089	7960	3,9009131	7993	3,9027098
7928	3,8991636	7961	3,9009676	7994	3,9027641
7929	3,8992184	7962	3,9010222	7995	3,9028185
7930	3,8992732	7963	3,9010767	7996	3,9028728
7931	3,8993279	7964	3,9011313	7997	3,9029271
7932	3,8993827	7965	3,9011858	7998	3,9029814
7933	3,8994375	7966	3,9012403	7999	3,9030357
7934	3,8994922	7967	3.9012948	8000	3,9030900

N.	Logarith	N.	Logarith	N.	Logarith
8001	3,9031443	8034	3,9049318	8067	3,9067121
8002	3,9031985	8035	3,9049859	8068	3,9067659
8003	3,9032528	8036	3,9050399	8069	3,9068197
8004	3,9033071	8037	3,9050940	8070	3,9068735
8005	3,9033613	8038	3,9051480	8071	3,9069273
8006	3,9034156	8039	3,9052020	8072	3,9069812
8007	3,9034698	8040	3,9052560	8073	3,9070350
8008	3,9035241	8041	3,9053101	8074	3,9070887
8009	3,9035783	8042	3,9053641	8075	3,9071425
8010	3,9036325	8043	3,9054181	8076	3,9071963
8011	3,9036867	8044	3,9054721	8077	3,9072501
8012	3,9037409	8045	3,9055260	8078	3,9073038
8013	3,9037951	8046	3,9055800	8079	3,9073576
8014	3,9038493	8047	3,9056340	8080	3,9074114
8015	3,9039035	8048	3,9056880	8081	3,9074651
8016	3,9039577	8049	3,9057419	8082	3,9075188
8017	3,9040119	8050	3,9057959	8083	3,9075726
8018	3,9040661	8051	3,9058498	8084	3,9076263
8019	3,9041202	8052	3,9059038	8085	3,9076800
8020	3,9041744	8053	3,9059577	8086	3,9077337
8021	3,9042285	8054	3,9060116	8087	3,9077874
8022	3,9042827	8055	3,9060655	8088	3,9078411
8023	3,9043368	8056	3,9061195	8089	3,9078948
8024	3,9043909	8057	3,9061734	8090	3,9079485
8025	3,9044450	8058	3,9062273	8091	3,9080022
8026	3,9044992	8059	3,9062812	8092	3,9080559
8027	3,9045533	8060	3,9063350	8093	3,9081095
8028	3,9046074	8061	3,9063889	8094	3,9081632
8029	3,9046615	8062	3,9064428	8095	3,9082169
8030	3,9047155	8063	3,9064967	8096	3,9082705
8031	3,9047696	8064	3,9065505	8097	3,9083241
8032	3,9048237	8065	3,9066044	8098	3,9083778
8033	3,9048778	8066	3,9066582	8099	3,9084314
8034	3,9049318	8067	3,9067121	8100	3,9084850

N.	Logarith	N.	Logarith	N.	Logarith
8101	3,9085386	8134	3,9103042	8167	3,9120626
8102	3,9085922	8135	3,9103576	8168	3,9121157
8103	3,9086458	8136	3,9104109	8169	3,9121689
8104	3,9086994	8137	3,9104643	8170	3,9122221
8105	3,9087530	8138	3,9105177	8171	3,9122752
8106	3,9088066	8139	3,9105710	8172	3,9123234
8107	3,9088602	8140	3,9106244	8173	3,9123815
8108	3,9089137	8141	3,9106778	8174	3,9124346
8109	3,9089673	8142	3,9107311	8175	3,9124878
8110	3,9090209	8143	3,9107844	8176	3,9125409
8111	3,9090744	8144	3,9108378	8177	3,9125940
8112	3,9091279	8145	3,9108911	8178	3,9126471
8113	3,9091815	8146	3,9109444	8179	3,9127002
8114	3,9092350	8147	3,9109977	8180	3,9127533
8115	3,9092885	8148	3,9110510	8181	3,9128064
8116	3,9093420	8149	3,9111043	8182	3,9128595
8117	3,9093955	8150	3,9111576	8183	3,9129126
8118	3,9094490	8151	3,9112109	8184	3,9129656
8119	3,9095025	8152	3,9112642	8185	3,9130187
8120	3,9095560	8153	3,9113174	8186	3,9130717
8121	3,9096095	8154	3,9113707	8187	3,9131248
8122	3,9096630	8155	3,9114240	8188	3,9131778
8123	3,9097165	8156	3,9114772	8189	3,9132309
8124	3,9097699	8157	3,9115305	8190	3,9132839
8125	3,9098234	8158	3,9115837	8191	3,9133369
8126	3,9098768	8159	3,9116369	8192	3,9133899
8127	3,9099303	8160	3,9116902	8193	3,9134430
8128	3,9099837	8161	3,9117434	8194	3,9134960
8129	3,9100371	8162	3,9117966	8195	3,9135490
8130	3,9100905	8163	3,9118498	8196	3,9136019
8131	3,9101440	8164	3,9119030	8197	3,9136549
8132	3,9101974	8165	3,9119562	8198	3,9137079
8133	3,9102508	8166	3,9120094	8199	3,9137609
8134	3,9103042	8167	3,9120626	8200	3,9138139

N.	Logarith	N.	Logarith	N.	Logarith
8201	3.9138668	8234	3.9156109	8267	3.9173479
8202	3.9139198	8235	3.9156636	8268	3.9174005
8203	3.9139727	8236	3.9157163	8269	3.9174530
8204	3.9140257	8237	3.9157691	8270	3.9175055
8205	3.9140786	8238	3.9158218	8271	3.9175580
8206	3.9141315	8239	3.9158745	8272	3.9176105
8207	3.9141844	8240	3.9159272	8273	3.9176630
8208	3.9142373	8241	3.9159799	8274	3.9177155
8209	3.9142903	8242	3.9160326	8275	3.9177680
8210	3.9143432	8243	3.9160853	8276	3.9178205
8211	3.9143961	8244	3.9161380	8277	3.9178730
8212	3.9144489	8245	3.9161907	8278	3.9179254
8213	3.9145018	8246	3.9162433	8279	3.9179779
8214	3.9145547	8247	3.9162960	8280	3.9180303
8215	3.9146076	8248	3.9163487	8281	3.9180828
8216	3.9146604	8249	3.9164013	8282	3.9181352
8217	3.9147133	8250	3.9164539	8283	3.9181877
8218	3.9147661	8251	3.9165066	8284	3.9182401
8219	3.9148190	8252	3.9165592	8285	3.9182925
8220	3.9148718	8253	3.9166118	8286	3.9183449
8221	3.9149246	8254	3.9166645	8287	3.9183973
8222	3.9149775	8255	3.9167171	8288	3.9184497
8223	3.9150303	8256	3.9167697	8289	3.9185021
8224	3.9150831	8257	3.9168223	8290	3.9185545
8225	3.9151359	8258	3.9168749	8291	3.9186069
8226	3.9151887	8259	3.9169275	8292	3.9186593
8227	3.9152415	8260	3.9169800	8293	3.9187117
8228	3.9152943	8261	3.9170326	8294	3.9187640
8229	3.9153471	8262	3.9170852	8295	3.9188164
8230	3.9153998	8263	3.9171378	8296	3.9188687
8231	3.9154526	8264	3.9171903	8297	3.9189211
8232	3.9155054	8265	3.9172429	8298	3.9189734
8233	3.9155581	8266	3.9172954	8299	3.9190258
8234	3.9156109	8267	3.9173479	8300	3.9190781

N.	Logarith	N.	Logarith	N.	Logarith
8301	3.9191304	8334	3.9208535	8367	3.9225698
8302	3.9191827	8335	3.9209056	8368	3.9226217
8303	3.9192350	8336	3.9209577	8369	3.9226736
8304	3.9192873	8337	3.9210098	8370	3.9227255
8305	3.9193396	8338	3.9210619	8371	3.9227773
8306	3.9193919	8339	3.9211140	8372	3.9228292
8307	3.9194442	8340	3.9211661	8373	3.9228811
8308	3.9194965	8341	3.9212181	8374	3.9229330
8309	3.9195488	8342	3.9212702	8375	3.9229848
8310	3.9196010	8343	3.9213222	8376	3.9230367
8311	3.9196533	8344	3.9213743	8377	3.9230885
8312	3.9197055	8345	3.9214263	8378	3.9231404
8313	3.9197578	8346	3.9214784	8379	3.9231922
8314	3.9198100	8347	3.9215304	8380	3.9232440
8315	3.9198623	8348	3.9215824	8381	3.9232958
8316	3.9199145	8349	3.9216345	8382	3.9233477
8317	3.9199667	8350	3.9216865	8383	3.9233995
8318	3.9200189	8351	3.9217385	8384	3.9234513
8319	3.9200711	8352	3.9217905	8385	3.9235031
8320	3.9201233	8353	3.9218425	8386	3.9235549
8321	3.9201755	8354	3.9218945	8387	3.9236066
8322	3.9202277	8355	3.9219465	8388	3.9236584
8323	3.9202799	8356	3.9219984	8389	3.9237102
8324	3.9203321	8357	3.9220504	8390	3.9237620
8325	3.9203842	8358	3.9221024	8391	3.9238137
8326	3.9204364	8359	3.9221543	8392	3.9238655
8327	3.9204886	8360	3.9222063	8393	3.9239172
8328	3.9205407	8361	3.9222582	8394	3.9239690
8329	3.9205929	8362	3.9223102	8395	3.9240207
8330	3.9206450	8363	3.9223621	8396	3.9240724
8331	3.9206971	8364	3.9224140	8397	3.9241242
8332	3.9207493	8365	3.9224659	8398	3.9241759
8333	3.9208014	8366	3.9225179	8399	3.9242276
8334	3.9208535	8367	3.9225698	8400	3.9242793

N.	Logarith	N.	Logarith	N.	Logarith
8401	3,9243310	8434	3,9260336	8467	3,9277296
8402	3,9243827	8435	3,9260851	8468	3,9277808
8403	3,9244344	8436	3,9261366	8469	3.9278321
8404	3,9244860	8437	3,9261880	8470	3,9278834
8405	3,9245377	8438	3,9262395	8471	3,9279347
8406	3.9245894	8439	3,9262910	8472	3,9279859
8407	3,9246410	8440	3,9263424	8473	3,9280372
8408	3,9246927	8441	3,9263939	8474	3,9280885
8409	3,9247444	8442	3,9264453	8475	3,9281397
8410	3,9247960	8443	3,9264968	8476	3,9281909
8411	3,9248476	8444	3,9265482	8477	3,9282422
8412	3,9248993	8445	3,9265997	8478	3,9282934
8413	3,9249509	8446	3,9266511	8479	3,9283446
8414	3,9250025	8447	3,9267025	8480	3,9283959
8415	3,9250541	8448	3,9267539	8481	3,9284471
8416	3,9251057	8449	3,9268053	8482	3,9284983
8417	3,9251573	8450	3,9268567	8483	3,9285495
8418	3,9252089	8451	3,9269081	8484	3,9286007
8419	3,9252605	8452	3,9269595	8485	3,9286518
8420	3,9253121	8453	3,9270109	8486	3,9287030
8421	3,9253637	8454	3,9270622	8487	3,9287542
8422	3,9254152	8455	3,9271136	8488	3,9288054
8423	3,9254668	8456	3,9271650	8489	3,9288565
8424	3,9255184	8457	3,9272163	8490	3,9289077
8425	3,9255699	8458	3,9272677	8491	3,9289588
8426	3,9256215	8459	3,9273190	8492	3,9290100
8427	3,9256730	8460	3,9273704	8493	3,9290611
8428	3,9257245	8461	3,9274217	8494	3,9291123
8429	3,9257761	8462	3,9274730	8495	3,9291634
8430	3,9258276	8463	3,9275243	8496	3,9292145
8431	3,9258791	8464	3,9275757	8497	3,9292656
8432	3,9259306	8465	3,9276270	8498	3,9293167
8433	3,9259821	8466	3,9276783	8499	3,9293678
8434	3,9260336	8467	3,9277296	8500	3,9294189

N.	Logarith	N.	Logarith	N.	Logarith
8501	3,9294700	8534	3,9311526	8567	3,9328288
8502	3,9295211	8535	3,9312035	8568	3,9328795
8503	3,9295722	8536	3,9312544	8569	3,9329301
8504	3,9296233	8537	3,9313053	8570	3,9329808
8505	3,9296743	8538	3,9313561	8571	3,9330315
8506	3,9297254	8539	3,9314070	8572	3,9330822
8507	3,9297764	8540	3,9314579	8573	3,9331328
8508	3,9298275	8541	3,9315087	8574	3,9331835
8509	3,9298785	8542	3,9315596	8575	3,9332341
8510	3,9299296	8543	3,9316104	8576	3,9332848
8511	3,9299806	8544	3,9316612	8577	3,9333354
8512	3,9300316	8545	3,9317121	8578	3,9333860
8513	3,9300826	8546	3,9317629	8579	3,9334367
8514	3,9301336	8547	3,9318137	8580	3,9334873
8515	3,9301847	8548	3,9318645	8581	3,9335379
8516	3,9302357	8549	3,9319153	8582	3,9335885
8517	3,9302866	8550	3,9319661	8583	3,9336391
8518	3,9303376	8551	3,9320169	8584	3,9336897
8519	3,9303886	8552	3,9320677	8585	3,9337403
8520	3,9304396	8553	3,9321185	8586	3,9337909
8521	3,9304906	8554	3,9321692	8587	3,9338415
8522	3,9305415	8555	3,9322200	8588	3,9338920
8523	3,9305925	8556	3,9322708	8589	3,9339426
8524	3,9306434	8557	3,9323215	8590	3,9339932
8525	3,9306944	8558	3,9323723	8591	3,9340437
8526	3,9307453	8559	3,9324230	8592	3,9340943
8527	3,9307963	8560	3,9324738	8593	3,9341448
8528	3,9308472	8561	3,9325245	8594	3,9341953
8529	3,9308981	8562	3,9325752	8595	3,9342459
8530	3,9309490	8563	3,9326259	8596	3,9342964
8531	3,9309999	8564	3,9326767	8597	3,9343469
8532	3,9310508	8565	3,9327274	8598	3,9343974
8533	3,9311017	8566	3,9327781	8599	3,9344479
8534	3,9311526	8567	3,9328288	8600	3,9344984

N.	Logarith	N.	Logarith	N.	Logarith
8601	3,9345489	8634	3,9362120	8667	3,9378688
8602	3,9345994	8635	3,9362623	8668	3,9379189
8603	3,9346499	8636	3,9363126	8669	3,9379690
8604	3,9347004	8637	3,9363629	8670	3,9380191
8605	3,9347509	8638	3,9364132	8671	3,9380692
8606	3,9348013	8639	3,9364635	8672	3,9381193
8607	3,9348518	8640	3,9365137	8673	3,9381693
8608	3,9349023	8641	3,9365640	8674	3,9382194
8609	3,9349527	8642	3,9366143	8675	3,9382695
8610	3,9350032	8643	3,9366645	8676	3,9383195
8611	3,9350536	8644	3,9367148	8677	3,9383696
8612	3,9351040	8645	3,9367650	8678	3,9384196
8613	3,9351544	8646	3,9368152	8679	3,9384697
8614	3,9352040	8647	3,9368655	8680	3,9385197
8615	3,9352553	8648	3,9369157	8681	3,9385698
8616	3.9353057	8649	3,9369659	8682	3,9386198
8617	3,9353561	8650	3,9370161	8683	3,9386698
8618	3,9354065	8651	3,9370663	8684	3,9387198
8619	3,9354569	8652	3,9371165	8685	3,9387698
8620	3,9355073	8653	3,9371667	8686	3,9388198
8621	3,9355576	8654	3,9372169	8687	3,9388698
8622	3,9356080	8655	3,9372671	8688	3,9389198
8623	3,9356584	8656	3,9373172	8689	3.9389698
8624	3.9357087	8657	3,9373674	8690	3,9390198
8625	3,9357591	8658	3,9374176	8691	3.9390697
8626	3,9358095	8659	3,9374677	8692	3,9391197
8627	3,9358598	8660	3,9375179	8693	3,9391697
8628	3,9359101	8661	3,9375680	8694	3,9392196
8629	3.9359605	8662	3,9376182	8695	3,9392696
8630	3,9360108	8663	3,9376683	8696	3,9393195
8631	3,9360611	8664	3,9377184	8697	3,9393695
8632	3,9361114	8665	3,9377686	8698	3,9394194
8633	3,9361617	8666	3,9378187	8699	3,9394693
8634	3,9362120	8667	3,9378688	8700	3,9395193

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
8701	3,9395692	8734	3,9412132	8767	3,9428510
8702	3,9396191	8735	3.9412629	8768	3,9429005
8703	3,9396690	8736	3,9413126	8769	3,9429501
8704	3,9397189	8737	3,9413623	8770	3,9429996
8705	3,9397688	8738	3,9414120	8771	3.9430491
8706	3,9398187	8739	3,9414617	8772	3,9430986
8707	3,9398685	8740	3,9415114	8773	3,9431481
8708	3,9399184	8741	3,9415611	8774	3,9431976
8709	3,9399683	8742	3,9416108	8775	3,9432471
8710	3,9400182	8743	3,9416605	8776	3,9432966
8711	3,9400680	8744	3,9417101	8777	3,9433461
8712	3,9401179	8745	3,9417598	8778	3,9433956
8713	3,9401677	8746	3,9418095	8779	3.9434450
8714	3,9402176	8747	3,9418591	8780	3,9434945
8715	3,9402674	8748	3,9419088	8781	3,9435440
8716	3.9403172	8749	3,9419584	8782	3,9435934
8717	3,9403670	8750	3,9420081	8783	3,9436429
8718	3,9404169	8751	3,9420577	8784	3.9436923
8719	3,9404667	8752	3,9421073	8785	3,9437418
8720	3,9405165	8753	3,9421569	8786	3,9437912
8721	3,9405663	8754	3,9422065	8787	3,9438406
8722	3,9406161	8755	3,9422561	8788	3,9438900
8723	3,9406659	8756	3,9423058	8789	3,9439395
8724	3,9407157	8757	3,9423553	8790	3,9439889
8725	3,9407654	8758	3,9424049	8791	3,9440383
8726	3,9408152	8759	3,9424545	8792	3,9440877
8727	3,9408650	8760	3,9425041	8793	3,9441371
8728	3,9409147	8761	3,9425537	8794	3,9441865
8729	3,9409645	8762	3,9426032	8795	3,9442358
8730	3,9410142	8763	3,9426528	8796	3,9442852
8731	3,9410640	8764	3,9427024	8797	3,9443346
8732	3,9411137	8765	3,9427519	8798	3,9443840
8733	3,9411635	8766	3,9428015	8799	3,9444333
8734	3,9412132	8767	3,9428510	8800	3,9444827

N.	Logarith	N.	Logarith	N.	Logarith
8801	3,9445320	8834	3,9461574	8867	3,9477767
8802	3,9445814	8835	3,9462066	8868	3,9478257
8803	3.9446307	8836	3,9462557	8869	3,9478747
8804	3,9446800	8837	3,9463048	8870	3,9479236
8805	3,9447294	8838	3,9463540	8871	3,9479726
8806	3,9447787	8839	3,9464031	8872	3,9480215
8807	3,9448280	8840	3,9464523	8873	3,9480705
8808	3,9448773	8841	3,9465014	8874	3,9481194
8809	3,9449266	8842	3,9465505	8875	3,9481684
8810	3,9449759	8843	3,9465996	8876	3,9482173
8811	3,9450252	8844	3,9466487	8877	3,9482662
8812	3,9450745	8845	3,9466978	8878	3,9483151
8813	3,9451238	8846	3,9467469	8879	3,9483641
814	3,9451730	8847	3,9467960	8880	3,9484130
815	3,9452223	8848	3,9468451	8881	3,9484619
816	3,9452716	8849	3,9468942	8882	3,9485108
817	3,9453208	8850	3,9469433	8883	3,9485597
818	3,9453701	8851	3,9469923	8884	3,9486085
819	3,9454193	8852	3,9470414	8885	3.9486574
820	3,9454686	8853	3,9470905	8886	3,9487063
821	3,9455178	8854	3,9471395	8887	3,9487552
822	3,9455671	8855	3,9471886	8888	3,9488040
823	3,9456163	8856	3,9472376	8889	3,9488529
824	3,9456655	8857	3,9472866	8890	3,9489018
825	3,9457147	8858	3,9473357	8891	3,9489506
26	3,9457639	8859	3,9473847	8892	3,9489995
27	3,9458131	8860	3,9474337	8893	3,9490483
28	3,9458623	8861	3,9474827	8894	3,9490971
29	3,9459115	8862	3.9475317	8895	3,9491460
30	3,9459607	8863	3,9475807	8896	3,9491948
31	3,9460099	8864	3,9476297	8897	3,9492436
32	3,9460591	8865	3,9476787	8898	3,9492924
33	3,9461082	8866	3,9477277	8899	3,9493412
34	3,9461574	8867	3,9477767	8900	3,9493900

N.	Logarith	N.	Logarith	N.	Logarith
8901	3.9494388	8934	3.9510459	8967	3.9526472
8902	3.9494876	8935	3.9510946	8968	3.9526956
8903	3.9495364	8936	3.9511432	8969	3.9527440
8904	3.9495852	8937	3.9511918	8970	3.9527924
8905	3.9496339	8938	3.9512404	8971	3.9528409
8906	3.9496827	8939	3.9512889	8972	3.9528893
8907	3.9497315	8940	3.9513375	8973	3.9529377
8908	3.9497802	8941	3.9513861	8974	3.9529861
8909	3.9498290	8942	3.9514347	8975	3.9530345
8910	3.9498777	8943	3.9514832	8976	3.9530828
8911	3.9499264	8944	3.9515318	8977	3.9531312
8912	3.9499752	8945	3.9515803	8978	3.9531796
8913	3.9500239	8946	3.9516289	8979	3.9532280
8914	3.9500726	8947	3.9516774	8980	3.9532763
8915	3.9501213	8948	3.9517260	8981	3.9533247
8916	3.9501701	8949	3.9517745	8982	3.9533730
8917	3.9502188	8950	3.9518230	8983	3.9534214
8918	3.9502675	8951	3.9518716	8984	3.9534697
8919	3.9503162	8952	3.9519201	8985	3.9535181
8920	3.9503649	8953	3.9519686	8986	3.9535664
8921	3.9504135	8954	3.9520171	8987	3.9536147
8922	3.9504622	8955	3.9520656	8988	3.9536631
8923	3.9505109	8956	3.9521141	8989	3.9537114
8924	3.9505596	8957	3.9521626	8990	3.953759
8925	3.9506082	8958	3.9522111	8991	3.953808
8926	3.9506569	8959	3.9522595	8992	3.953856
8927	3.9507055	8960	3.9523080	8993	3.953904
8928	3.9507542	8961	3.9523565	8994	3.953952
8929	3.9508028	8962	3.9524049	8995	3.954001
8930	3.9508515	8963	3.9524534	8996	3.954049
8931	3.9509001	8964	3.9525018	8997	3.954097
8932	3.9509487	8965	3.9525503	8998	3.954146
8933	3.9509973	8966	3.9525987	8999	3.954194
8934	3.9510459	8967	3.9526472	9000	3.954242

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
9001	3.9542908	9034	3.9558801	9067	3.9574636
9002	3.9543390	9035	3.9559282	9068	3.9575115
9003	3.9543872	9036	3.9559762	9069	3.9575594
9004	3.9544355	9037	3.9560243	9070	3.9576073
9005	3.9544837	9038	3.9560723	9071	3.9576552
9006	3.9545319	9039	3.9561204	9072	3.9577030
9007	3.9545802	9040	3.9561684	9073	3.9577509
9008	3.9546284	9041	3.9562165	9074	3.9577988
9009	3.9546766	9042	3.9562645	9075	3.9578466
9010	3.9547248	9043	3.9563125	9076	3.9578945
9011	3.9547730	9044	3.9563606	9077	3.9579423
9012	3.9548212	9045	3.9564086	9078	3.9579902
9013	3.9548694	9046	3.9564566	9079	3.9580380
9014	3.9549176	9047	3.9565046	9080	3.9580858
9015	3.9549657	9048	3.9565526	9081	3.9581337
9016	3.9550139	9049	3.9566006	9082	3.9581815
9017	3.9550621	9050	3.9566486	9083	3.9582293
9018	3.9551102	9051	3.9566966	9084	3.9582771
9019	3.9551584	9052	3.9567445	9085	3.9583249
9020	3.9552065	9053	3.9567925	9086	3.9583727
9021	3.9552547	9054	3.9568405	9087	3.9584205
9022	3.9553028	9055	3.9568885	9088	3.9584683
9023	3.9553510	9056	3.9569364	9089	3.9585161
9024	3.9553991	9057	3.9569844	9090	3.9585639
9025	3.9554472	9058	3.9570323	9091	3.9586117
9026	3.9554953	9059	3.9570803	9092	3.9586594
9027	3.9555434	9060	3.9571282	9093	3.9587072
9028	3.9555915	9061	3.9571761	9094	3.9587549
9029	3.9556397	9062	3.9572241	9095	3.9588027
9030	3.9556877	9063	3.9572720	9096	3.9588505
9031	3.9557358	9064	3.9573199	9097	3.9588982
9032	3.9557839	9065	3.9573678	9098	3.9589459
9033	3.9558320	9066	3.9574157	9099	3.9589937
9034	3.9558801	9067	3.9574636	9100	3.9590414

N.	Logarith	N.	Logarith	N.	Logarith
9101	3,9590891	9134	3,9606610	9167	3,9622272
9102	3,9591368	9135	3,9607086	9168	3,9622746
9103	3,9591845	9136	3,9607561	9169	3,9623220
9104	3,9592322	9137	3,9608036	9170	3,9623693
9105	3,9592799	9138	3,9608512	9171	3,9624167
9106	3,9593276	9139	3,9608987	9172	3,9624640
9107	3,9593753	9140	3,9609462	9173	3,9625114
9108	3,9594230	9141	3,9609937	9174	3,9625587
9109	3,9594707	9142	3,9610412	9175	3,9626061
9110	3,9595184	9143	3,9610887	9176	3,9626534
9111	3,9595660	9144	3,9611362	9177	3,9627007
9112	3,9596137	9145	3,9611837	9178	3,9627481
9113	3,9596614	9146	3,9612312	9179	3,9627954
9114	3,9597090	9147	3,9612787	9180	3,9628427
9115	3,9597567	9148	3,9613262	9181	3,9628900
9116	3,9598043	9149	3,9613736	9182	3,9629373
9117	3,9598520	9150	3,9614211	9183	3,9629846
9118	3,9598996	9151	3,9614686	9184	3,9630319
9119	3,9599472	9152	3,9615160	9185	3,9630792
9120	3,9599948	9153	3,9615635	9186	3,9631264
9121	3,9600425	9154	3,9616109	9187	3,9631737
9122	3,9600901	9155	3,9616583	9188	3,9632210
9123	3,9601377	9156	3,9617058	9189	3,9632683
9124	3,9601853	9157	3,9617532	9190	3,9633155
9125	3,9602329	9158	3,9618006	9191	3,9633628
9126	3,9602805	9159	3,9618481	9192	3,9634100
9127	3,9603280	9160	3,9618955	9193	3,9634573
9128	3,9603756	9161	3,9619429	9194	3,9635045
9129	3,9604232	9162	3,9619903	9195	3,9635517
9130	3,9604708	9163	3,9620377	9196	3,9635990
9131	3,9605183	9164	3,9620851	9197	3,9636462
9132	3,9605659	9165	3,9621325	9198	3,9636934
9133	3,9606135	9166	3,9621799	9199	3,9637406
9134	3,9606610	9167	3,9622272	9200	3,9637878

N	Logarith	N.	Logarith	N.	Logarith
9201	3,9638350	9234	3,9653899	9267	3,9669392
9202	3,9638822	9235	3,9654369	9268	3,9669860
9203	3,9639294	9236	3,9654839	9269	3,9670329
9204	3,9639766	9237	3,9655309	9270	3,9670797
9205	3,9640238	9238	3,9655780	9271	3,9671266
9206	3,9640710	9239	3,9656250	9272	3,9671734
9207	3,9641181	9240	3,9656720	9273	3,9672203
9208	3,9641653	9241	3,9657190	9274	3,9672671
9209	3,9642125	9242	3,9657660	9275	3,9673139
9210	3,9642596	9243	3,9658130	9276	3,9673607
9211	3,9643068	9244	3,9658599	9277	3,9674076
9212	3,9643539	9245	3,9659069	9278	3,9674544
9213	3,9644011	9246	3,9659539	9279	3,9675012
9214	3,9644482	9247	3,9660009	9280	3,9675480
9215	3,9644953	9248	3,9660478	9281	3,9675948
9216	3,9645425	9249	3,9660948	9282	3,9676416
9217	3,9645896	9250	3.9661417	9283	3,9676883
9218	3,9646367	9251	3,9661887	9284	3,9677351
9219	3,9646838	9252	3,9662356	9285	3,9677819
9220	3,9647309	9253	3,9662826	9286	3,9678287
9221	3,9647780	9254	3,9663295	9287	3,9678754
9222	3,9648251	9255	3,9663764	9288	3,9679222
9223	3,9648722	9256	3,9664233	9289	3,9679690
9224	3,9649193	9257	3,9664703	9290	3,9680157
9225	3,9649664	9258	3,9665172	9291	3,9680625
226	3,9650134	9259	3,9665641	9292	3,9681092
227	3,9650605	9260	3,9666110	9293	3,9681559
228	3,9651076	9261	3,9666579	9294	3,9682027
229	3,9651546	9262	3,9667048	9295	3,9682494
230	3.9652017	9263	3,9667517	9296	3,9682961
231	3,9652488	9264	3,9667985	9297	3,9683428
232	3,9652958	9265	3,9668454	9298	3,9683895
233	3,9653428	9266	3,9668923	9299	3,9684362
234	3,9653899	9267	3,9669392	9300	3,9684829

N.	Logarith	N.	Logarith	N.	Logarith
9301	3,9685296	9334	3,9700678	9367	3,9716005
9302	3,9685763	9335	3,9701143	9368	3,9716469
9303	3,9686230	9336	3,9701608	9369	3,9716932
9304	3,9686697	9337	3,9702074	9370	3,9717396
9305	3,9687164	9338	3,9702539	9371	3,9717859
9306	3,9687630	9339	3,9703004	9372	3,9718323
9307	3,9688097	9340	3,9703469	9373	3,9718786
9308	3,9688564	9341	3,9703934	9374	3,9719249
9309	3,9689030	9342	3,9704399	9375	3,9719713
9310	3,9689497	9343	3,9704863	9376	3,9720176
9311	3,9689963	9344	3,9705328	9377	3,9720639
9312	3,9690430	9345	3,9705793	9378	3,9721102
9313	3,9690896	9346	3,9706258	9379	3,9721565
9314	3,9691362	9347	3,9706722	9380	3,9722028
9315	3,9691829	9348	3,9707187	9381	3,9722491
9316	3,9692295	9349	3,9707652	9382	3,9722954
9317	3,9692761	9350	3.9708116	9383	3,9723417
9318	3,9693227	9351	3,9708581	9384	3,9723880
9319	3,9693693	9352	3,9709045	9385	3,9724343
9320	3,9694159	9353	3,9709509	9386	3,9724805
9321	3,9694625	9354	3,9709974	9387	3,9725268
9322	3,9695091	9355	3,9710438	9388	3,9725731
9323	3,9695557	9356	3,9710902	9389	3,9726193
9324	3,9696023	9357	3,9711366	9390	3,9726656
9325	3,9696488	9358	3,9711830	9391	3.9727118
9326	3,9696954	9359	3,9712294	9392	3,9727581
9327	3,9697420	9360	3,9712758	9393	3,9728043
9328	3.9697885	9361	3,9713222	9394	3,9728506
9329	3,9698351	9362	3,9713686	9395	3,9728968
9330	3,9698816	9363	3,9714150	9396	3,9729430
9331	3,9699282	9364	3,9714614	9397	3,9729892
9332	3,9699747	9365	3,9715078	9398	3,9730354
9333	3,9700213	9366	3,9715542	9399	3,9730816
9334	3,9700678	9367	3,9716005	9400	3,9731279

N.	Logarith	N.	Logarith	N.	Logarith
9401	3.9731741	9434	3.9746959	9467	3.9762124
9402	3.9732202	9435	3.9747419	9468	3.9762582
9403	3.9732664	9436	3.9747879	9469	3.9763041
9404	3.9733126	9437	3.9748340	9470	3.9763500
9405	3.9733588	9438	3.9748800	9471	3.9763958
9406	3.9734050	9439	3.9749260	9472	3.9764417
9407	3.9734511	9440	3.9749720	9473	3.9764875
9408	3.9734973	9441	3.9750180	9474	3.9765334
9409	3.9735435	9442	3.9750640	9475	3.9765792
9410	3.9735896	9443	3.9751100	9476	3.9766251
9411	3.9736358	9444	3.9751560	9477	3.9766709
9412	3.9736819	9445	3.9752020	9478	3.9767167
9413	3.9737281	9446	3.9752479	9479	3.9767625
9414	3.9737742	9447	3.9752939	9480	3.9768083
9415	3.9738203	9448	3.9753399	9431	3.9768541
9416	3.9738664	9449	3.9753858	9482	3.9768999
9417	3.9739126	9450	3.9754318	9483	3.9769457
9418	3.9739587	9451	3.9754778	9484	3.9769915
9419	3.9740048	9452	3.9755237	9485	3.9770373
9420	3.9740509	9453	3.9755697	9486	3.9770831
9421	3.9740970	9454	3.9756156	9487	3.9771289
9422	3.9741431	9455	3.9756615	9488	3.9771747
9423	3.9741892	9456	3.9757075	9489	3.9772204
9424	3.9742353	9457	3.9757534	9490	3.9772662
9425	3.9742814	9458	3.9757993	9491	3.9773120
9426	3.9743274	9459	3.9758452	9492	3.9773577
9427	3.9743735	9460	3.9758911	9493	3.9774035
9428	3.9744196	9461	3.9759370	9494	3.9774492
9429	3.9744656	9462	3.9759829	9495	3.9774950
9430	3.9745117	9463	3.9760288	9496	3.9775407
9431	3.9745577	9464	3.9760747	9497	3.9775864
9432	3.9746038	9465	3.9761206	9498	3.9776322
9433	3.9746498	9466	3.9761665	9499	3.9776779
9434	3.9746959	9467	3.9762124	9500	3.9777236

N.	*Logarith*	*N.*	*Logarith*	*N.*	*Logarith*
9501	3.9777693	9534	3.9792751	9567	3.9807758
9502	3.9778150	9535	3.9793207	9568	3.9808212
9503	3.9778607	9536	3.9793662	9569	3.9808666
9504	3.9779064	9537	3.9794118	9570	3.9809119
9505	3.9779521	9538	3.9794573	9571	3.9809573
9506	3.9779978	9539	3.9795028	9572	3.9810027
9507	3.9780435	9540	3.9795484	9573	3.9810481
9508	3.9780892	9541	3.9795939	9574	3.9810934
9509	3.9781348	9542	3.9796394	9575	3.9811388
9510	3.9781805	9543	3.9796849	9576	3.9811841
9511	3.9782262	9544	3.9797304	9577	3.9812295
9512	3.9782718	9545	3.9797759	9578	3.9812748
9513	3.9783175	9546	3.9798214	9579	3.9813202
9514	3.9783631	9547	3.9798669	9580	3.9813655
9515	3.9784088	9548	3.9799124	9581	3.9814108
9516	3.9784544	9549	3.9799579	9582	3.9814562
9517	3.9785001	9550	3.9800034	9583	3.9815015
9518	3.9785457	9551	3.9800488	9584	3.9815468
9519	3.9785913	9552	3.9800943	9585	3.9815921
9520	3.9786369	9553	3.9801398	9586	3.9816374
9521	3.9786826	9554	3.9801852	9587	3.9816827
9522	3.9787282	9555	3.9802307	9588	3.9817280
9523	3.9787738	9556	3.9802761	9589	3.9817733
9524	3.9788194	9557	3.9803216	9590	3.9818186
9525	3.9788650	9558	3.9803670	9591	3.9818639
9526	3.9789106	9559	3.9804125	9592	3.9819092
9527	3.9789562	9560	3.9804579	9593	3.9819544
9528	3.9790017	9561	3.9805033	9594	3.9819997
9529	3.9790473	9562	3.9805487	9595	3.9820450
9530	3.9790929	9563	3.9805942	9596	3.9820902
9531	3.9791385	9564	3.9806396	9597	3.9821355
9532	3.9791840	9565	3.9806850	9598	3.9821807
9533	3.9792296	9566	3.9807304	9599	3.9822260
9534	3.9792751	9567	3.9807758	9600	3.9822712

N.	Logarith	N.	Logarith	N.	Logarith
601	3,9823165	9634	3,9838066	9667	3,9852917
602	3,9823617	9635	3,9838517	9668	3,9853366
603	3,9824069	9636	3,9838968	9669	3,9853816
604	3,9824522	9637	3,9839419	9670	3,9854265
605	3,9824974	9638	3,9839869	9671	3,9854714
606	3.9825426	9639	3,9840320	9672	3,9855163
607	3,9825878	9640	3,9840770	9673	3,9855612
608	3,9826330	9641	3,9841221	9674	3,9856061
609	3,9826782	9642	3,9841671	9675	3,9856510
610	3,9827234	9643	3,9842122	9676	3,9856959
611	3,9827686	9644	3,9842572	9677	3,9857407
612	3,9828138	9645	3,9843022	9678	3,9857856
613	3,9828589	9646	3,9843473	9679	3,9858305
614	3,9829041	9647	3,9843923	9680	3,9858754
615	3,9829493	9648	3,9844373	9681	3,9859202
16	3,9829945	9649	3,9844823	9682	3,9859651
17	3,9830396	9650	3,9845273	9683	3,9860099
18	3,9830848	9651	3,9845723	9684	3,9860548
19	3,9831299	9652	3,9846173	9685	3,9860996
20	3,9831751	9653	3,9846623	9686	3,9861445
21	3,9832202	9654	3,9847073	9687	3,9861893
22	3,9832654	9655	3,9847523	9688	3,9862341
23	3,9833105	9656	3,9847973	9689	3,9862790
24	3,9833556	9657	3,9848422	9690	3.9863238
25	3,9834007	9658	3,9848872	9691	3,9863686
26	3,9834459	9659	3,9849322	9692	3,9864134
27	3,9834910	9660	3,9849771	9693	3,9864582
28	3.9835361	9661	3,9850221	9694	3,9865030
29	3,9835812	9662	3,9850670	9695	3,9865478
30	3,9836263	9663	3,9851120	9696	3,9865926
31	3,9836714	9664	3,9851569	9697	3,9866374
32	3,9837165	9665	3,9852019	9698	3,9866822
33	3,9837616	9666	3,9852468	9699	3,9867270
4	3,9838066	9667	3,9852917	9700	3,9867717

N.	Logarith	N.	Logarith	N.	Logarith
9701	3,9868165	9734	3,9882913	9767	3,9897612
9702	3,9868613	9735	3,9883360	9768	3,9898056
9703	3,9869060	9736	3,9883806	9769	3,9898501
9704	3,9869508	9737	3,9884252	9770	3,9898946
9705	3,9869955	9738	3,9884698	9771	3,989939
9706	3,9870403	9739	3.9885144	9772	3,9899835
9707	3,9870850	9740	3,9885590	9773	3,9900279
9708	3,9871298	9741	3,9886035	9774	3,990072
9709	3,9871745	9742	3,9886481	9775	3,990116
9710	3,9872192	9743	3,9886927	9776	3,990161
9711	3.9872640	9744	3,9887373	9777	3,990205
9712	3,9873087	9745	3,9887818	9778	3.990250
9713	3,9873534	9746	3,9888264	9779	3,990294
9714	3.9873981	9747	3,9888710	9780	3,990338
9715	3,9874428	9748	3,9889155	9781	3,990383
9716	3,9874875	9749	3,9889601	9782	3,990427
9717	3,9875322	9750	3.9890046	9783	3,990472
9718	3,9875769	9751	3,9890492	9784	3,990516
9719	3,9876216	9752	3,9890937	9785	3,990560
9720	3,9876663	9753	3,9891382	9786	3,990605
9721	3,9877109	9754	3,9891828	9787	3,990649
9722	3,9877556	9755	3,9892273	9788	3,990694
9723	3,9878003	9756	3,9892718	9789	3,990738
9724	3,9878449	9757	3,9893163	9790	3,990782
9725	3,9878896	9758	3,9893608	9791	3,990827
9726	3,9879343	9759	3,9894053	9792	3,990871
9727	3,9879789	9760	3,9894498	9793	3,99091
9728	3,9880236	9761	3,9894943	9794	3.99096
9729	3,9880682	9762	3,9895388	9795	3,99100
9730	3,9881128	9763	3,9895833	9796	3,99104
9731	3,9881575	9764	3.9896278	9797	3,99109
9732	3,9882021	9765	3,9896722	9798	3,99113
9733	3,9882467	9766	3,9897167	9799	3,99118
9734	3,9882913	9767	3,9897612	9800	3,99122

N.	Logarith	N.	Logarith	N.	Logarith
801	3.9912704	9834	3.9927302	9867	3.9941851
802	3.9913147	9835	3.9927744	9868	3.9942291
803	3.9913590	9836	3.9928185	9869	3.9942731
804	3.9914033	9837	3.9928627	9870	3.9943172
805	3.9914476	9838	3.9929068	9871	3.9943612
806	3.9914919	9839	3.9929510	9872	3.9944051
807	3.9915362	9840	3.9929951	9873	3.9944491
808	3.9915805	9841	3.9930392	9874	3.9944931
809	3.9916247	9842	3.9930834	9875	3.9945371
810	3.9916690	9843	3.9931275	9876	3.9945811
811	3.9917133	9844	3.9931716	9877	3.9946251
812	3.9917575	9845	3.9932157	9878	3.9946690
813	3.9918018	9846	3.9932598	9879	3.9947130
814	3.9918461	9847	3.9933039	9880	3.9947569
815	3.9918903	9848	3.9933480	9881	3.9948009
816	3.9919345	9849	3.9933921	9882	3.9948448
817	3.9919788	9850	3.9934362	9883	3.9948888
818	3.9920230	9851	3.9934803	9884	3.9949328
819	3.9920673	9852	3.9935244	9885	3.9949767
820	3.9921115	9853	3.9935685	9886	3.9950206
821	3.9921557	9854	3.9936126	9887	3.9950645
822	3.9921999	9855	3.9936566	9888	3.9951085
823	3.9922441	9856	3.9937007	9889	3.9951524
824	3.9922884	9857	3.9937448	9890	3.9951963
825	3.9923326	9858	3.9937888	9891	3.9952402
826	3.9923768	9859	3.9938329	9892	3.9952841
827	3.9924210	9860	3.9938769	9893	3.9953280
828	3.9924651	9861	3.9939210	9894	3.9953719
829	3.9925093	9862	3.9939650	9895	3.9954158
830	3.9925535	9863	3.9940090	9896	3.9954597
831	3.9925977	9864	3.9940531	9897	3.9955036
832	3.9926419	9865	3.9940971	9898	3.9955474
833	3.9926860	9866	3.9941411	9899	3.9955913
834	3.9927302	9867	3.9941851	9900	3.9956352

N.	Logarith	N.	Logarith	N.	Logarit
9901	3.9956791	9934	3.9971242	9967	3.998564
9902	3.9957229	9935	3.9971679	9968	3.998608
9903	3.9957668	9936	3.9972116	9969	3.998651
9904	3.9958106	9937	3.9972553	9970	3.998695
9905	3.9958545	9938	3.9972990	9971	3.998738
9906	3.9958983	9939	3.9973427	9972	3.998782
9907	3.9959422	9940	3.9973864	9973	3.998825
9908	3.9959860	9941	3.9974301	9974	3.998869
9909	3.9960298	9942	3.9974738	9975	3.998912
9910	3.9960737	9943	3.9975174	9976	3.998956
9911	3.9961175	9944	3.9975611	9977	3.999000
9912	3.9961613	9945	3.9976048	9978	3.999043
9913	3.9962051	9946	3.9976485	9979	3.999087
9914	3.9962489	9947	3.9976921	9980	3.999130
9915	3.9962927	9948	3.9977358	9981	3.999174
9916	3.9963365	9949	3.9977794	9982	3.999217
9917	3.9963803	9950	3.9978231	9983	3.999261
9918	3.9964241	9951	3.9978667	9984	3.999304
9919	3.9964679	9952	3.9979104	9985	3.999348
9920	3.9965117	9953	3.9979540	9986	3.999391
9921	3.9965554	9954	3.9979976	9987	3.999435
9922	3.9965992	9955	3.9980413	9988	3.999478
9923	3.9966430	9956	3.9980849	9989	3.999522
9924	3.9966868	9957	3.9981285	9990	3.999565
9925	3.9967305	9958	3.9981721	9991	3.999609
9926	3.9967743	9959	3.9982157	9992	3.999652
9927	3.9968180	9960	3.9982593	9993	3.999695
9928	3.9968618	9961	3.9983029	9994	3.999739
9929	3.9969055	9962	3.9983465	9995	3.999782
9930	3.9969492	9963	3.9983901	9996	3.999826
9931	3.9969930	9964	3.9984337	9997	3.999869
9932	3.9970367	9965	3.9984773	9998	3.999913
9933	3.9970804	9966	3.9985209	9999	3.999956
9934	3.9971242	9967	3.9985645	10000	4.000000

AN
PPENDIX,
Containing ſuch Tables
as are vſefull in the Art
of Navigation.

A Table of Meridionall parts.

Latit. D.	M.	D.parts	*lat.* D.	D.parts	*lat.* D.	D.parts	*lat.* D.	D.parts
0	0	0,000	5	5,006	10	10,051	15	15,174
	10	0,167		5,174		10,220		15,347
	20	0,333		5,341		10,390		15,51
	30	0,500		5,508		10,559		15,69
	40	0,667		5,676		10,729		15,86
	50	0,833		5,843		10,898		16.03
1	0	1,000	6	6,011	11	11,068	16	16,21
	10	1,167		6,179		11,238		16,38
	20	1,333		6,346		11,408		16,55
	30	1,500		6,514		11,578		16,73
	40	1,667		6,682		11,748		16,90
	50	1,833		6,849		11,918		17,08
2	0	2,000	7	7,017	12	12,089	17	17,25
	10	2,167		7,186		12,259		17,42
	20	2,334		7,353		12,429		17,60
	30	2,501		7,521		12,600		17,77
	40	2,668		7,690		12,771		17,95
	50	2,834		7,858		12,942		18,12
3	0	3,001	8	8,026	13	13,113	18	18,30
	10	3,169		8,195		13,284		18,47
	20	3,335		8,363		13,455		18,65
	30	3,502		8,531		13,627		18,83
	40	3,669		8,700		13,798		19,00
	50	3,836		8,868		13,969		19,18
4	0	4,003	9	9,037	14	14,141	19	19,35
	10	4,171		9,206		14,313		19,53
	20	4,337		9,375		14,485		19,71
	30	4,505		9,544		14,657		19.88
	40	4,672		9,713		14,829		20,06
	50	4,839		9,882		15,001		20.24
5	0	5,006	10	10,051	15	15,174	20	20,41

A Table of Meridionall parts.

Latit. D.	M.	D.parts	lat. D.	D.parts	lat. D.	D.parts	lat. D.	D.parts
0	0	20,419	25	25,833	30	31,472	35	37,404
	10	20,596		26,017		31,664		37,607
	20	20,774		26,200		31,857		37,811
	30	20,952		26,386		32,051		38,016
	40	21,130		26,570		32,244		38,221
	50	21,308		26,755		32,438		38.426
1	0	21,486	26	26,941	31	32,633	36	38.632
	10	21,665		27,126		32,827		38,838
	20	21,844		27,312		33,022		39,044
	30	22,023		27,498		33,218		39,252
	40	22,202		27,685		33,413		39,460
	50	22,381		27,871		33,609		39,668
2	0	22,561	27	28,058	32	33,805	37	39,876
	10	22,741		28,245		34.002		40,085
	20	22,921		28,432		34,199		40,294
	30	23,101		28,620		34,397		40,504
	40	23,282		28,809		34,595		40,714
	50	23,462		28,997		34,792		40,925
3	0	23,643	28	29,185	33	34,991	38	41,136
	10	23,824		29,374		35,190		41,348
	20	24,006		29,563		35,389		41,560
	30	24,188		29,753		35,589		41,773
	40	24,369		29,943		35,789		41,986
	50	24,551		30.133		35,990		42,200
4	0	24,734	29	30,323	34	36,190	39	42,414
	10	24,916		30,514		36,391		42,629
	20	25,099		30,705		36,593		42,844
	30	25,282		30.896		36,795		43,060
	40	25,465		31,088		36,997		43,276
	50	25,648		31,279		37,200		43,493
5	0	25,833	30	31,472	35	37,404	40	43,710

A Table of Meridionall parts.

Latit.			lat.		lat.		lat.	
D.	M.	D.parts	D.	D.parts	D.	D.parts	D.	D.parts
40	0	43,710	45	50,497	50	57,905	55	66,129
	10	43,928		50,733		58,165		66,420
	20	44,146		50,970		58,425		66,712
	30	44,365		51,207		58,687		67,006
	40	44,584		51,445		58,949		67,301
	50	44,804		51,684		59,212		67,597
41	0	45,025	46	51,924	51	59,477	56	67,894
	10	45,246		52,164		59,743		68,193
	20	45,467		52,405		60,008		68,493
	30	45,689		52,647		60,276		68,794
	40	45,912		52,889		60,544		69,097
	50	46,136		53,132		60,813		69,401
42	0	46,360	47	53,376	52	61,083	57	69,706
	10	46,585		53,621		61,354		70,013
	20	46,810		53,867		61,626		70,321
	30	47,036		54.113		61,900		70,630
	40	47,262		54,360		62,174		70,941
	50	47,489		54,608		62,449		71,253
43	0	47,717	48	54,856	53	62,726	58	71,567
	10	47,945		55,106		63,004		71,883
	20	48,174		55,356		63,282		72,200
	30	48,403		55,607		63,562		72,517
	40	48,633		55,859		63,842		72,837
	50	48,864		56,112		64,124		73,158
44	0	49,095	49	56,365	54	64,407	59	73,481
	10	49,327		56,620		64,691		73,805
	20	49,560		56,875		64,976		74,131
	30	49,793		57,131		65,263		74,459
	40	50,027		57,389		65,550		74,788
	50	50,262		57,646		65,839		75,118
45	0	50,497	50	57,905	55	66,129	60	75,451

A Table of Meridionall parts.

Latit.			*lat*		*lat*		*lat*	
D.	M.	D.par.	D.	D.par.	D.	D.par.	D.	D.par.
60	0	75,451	65	86,307	70	99,42	75	116,16
	10	75,785		86,702		99,91		116,81
	20	76,121		87,100		100,41		117,46
	30	76,459		87,501		100.90		118,12
	40	76,798		87,904		101,40		118,79
	50	77,139		88,309		101,91		119,47
61	0	77,482	66	88,718	71	102,42	76	120,15
	10	77,826		89,129		102,93		120,85
	20	78,173		89,543		103,45		121,55
	30	78,521		89,959		103,97		122,26
	40	78,871		90,378		104,50		122,97
	50	79,223		90,801		105,03		123,70
62	0	79,577	67	91,226	72	105,57	77	124,44
	10	79,934		91,654		106,11		125,18
	20	80,291		92,084		106,66		125,94
	30	80,651		92,518		107,21		126,70
	40	81,013		92,955		107,77		127,48
	50	81,377		93,395		108,33		128,26
63	0	81,743	68	93,839	73	108,90	78	129,06
	10	82,111		94,285		109,47		129,86
	20	82,481		94,734		110,05		130,68
	30	82,854		95,188		110,63		131,51
	40	83,228		95,644		111,22		132,35
	50	83,605		96,103		111,82		133,21
64	0	83,984	69	96,567	74	112,42	79	134,07
	10	84,365		97,034		113,02		134,95
	20	84,749		97,504		113,64		135,85
	30	85,135		97,978		114,26		136,75
	40	85,523		98,456		114,88		137,68
	50	85,913		98,936		115,52		138,61
65	0	86,307	70	99,422	75	116,16	80	139,56

The firſt Table of Rumbs.

Lgs Rumbs.	100 G.M.	80 g.m.	60 g.m.	40 g.m.	20 m	19 m	18 m	17 m	16 m	15 m
	4,59	3,59	2,59	1,59	60	57	54	51	48	45
	4,58	3,58	2,59	1,59	60	57	54	51	48	45
	4,56	3,57	2,58	1,58	59	56	53	50	47	44
1	4,54	3,55	2,56	1,57	59	56	53	50	47	44
	4,51	3,53	2,55	1,56	58	56	52	50	47	43
	4,47	3,50	2,52	1,55	57	55	52	49	46	43
	4,42	3,46	2,49	1,53	56	54	51	48	45	42
2	4,37	3,42	2,46	1,51	55	53	50	47	44	41
	4,31	3,37	2,43	1,48	54	52	49	46	43	4
	4,25	3,32	2,39	1,46	53	50	48	45	42	3
	4,17	3,26	2,34	1,43	51	49	46	44	41	3
3	4,10	3,20	2,30	1,40	50	47	45	42	40	3
	4, 1	3,13	2,25	1,36	48	46	43	41	39	3
	3,52	3, 5	2,19	1,32	46	44	42	39	37	3
	3,42	2,58	2,13	1,28	44	42	40	38	36	3
4	3,32	2,50	2, 7	1,25	42	40	38	36	34	3
	3,22	2,41	2, 1	1,21	40	38	36	34	32	3
	3,10	2,32	1,54	1,16	38	36	34	32	30	2
	2,59	2,23	1,47	1,12	36	34	32	30	29	2
5	2,47	2,14	1,40	1, 7	33	32	30	28	27	2
	2,34	2, 3	1,32	1, 2	31	29	28	26	25	2
	2,22	1,53	1,25	0,57	28	27	25	24	23	2
	2, 8	1,43	1,17	0,52	26	24	23	22	21	1
6	1,55	1,32	1, 8	0,46	23	22	21	20	18	1
	1,41	1,20	1, 0	0,40	20	19	18	17	16	1
	1,27	1, 9	0,52	0,35	17	16	16	15	14	1
	1,13	0,58	0,44	0,30	15	14	13	12	12	1
7	0,59	0,47	0,35	0,24	12	11	11	10	9	
	0,44	0,36	0,26	0,18	9	8	8	7	7	
	0,30	0,24	0,18	0,12	6	6	5	5	5	
	0,15	0,12	0, 9	0, 6	3	3	3	3	2	

to fiinde the difference of Latitudes.

14	13	12	11	10	9	8	7	6	5	4	3	2	1	Lgs
m	m	m	m	m	m	m	m	m	m	m	m	m	m	Rumbs.
42	39	36	33	30	27	24	21	18	15	12	9	6	3	
42	39	36	33	30	27	24	21	18	15	12	9	6	3	
42	39	36	33	30	27	24	21	18	15	12	9	6	3	
41	38	35	32	29	26	24	21	18	15	12	9	6	3	1
41	38	35	32	29	26	23	20	17	15	12	9	6	3	
40	37	34	32	29	26	23	20	17	14	11	9	6	3	
40	37	34	31	28	25	23	20	17	14	11	8	6	3	
39	36	33	31	28	25	22	19	17	14	11	8	6	3	2
38	35	33	30	27	24	22	19	16	14	11	8	5	3	
37	34	32	29	26	24	21	19	16	13	11	8	5	3	
36	33	31	28	26	23	21	18	15	13	10	8	5	3	
35	32	30	27	25	22	20	17	15	12	10	7	5	2	3
34	31	29	26	24	22	19	17	14	12	10	7	5	2	
33	30	28	26	23	21	19	16	14	12	9	7	5	2	
31	29	27	24	22	20	18	16	13	11	9	7	4	2	
30	28	25	23	21	19	17	15	13	11	8	6	4	2	4
28	26	24	22	20	18	16	14	12	10	8	6	4	2	
27	25	23	21	19	17	15	13	11	10	8	6	4	2	
25	23	21	20	18	16	14	13	11	9	7	5	4	2	
23	22	20	18	17	15	13	12	10	8	7	5	3	2	5
22	20	18	17	15	14	12	11	9	8	6	5	3	2	
20	18	17	16	14	13	11	10	8	7	6	4	3	1	
8	17	15	14	13	12	10	9	8	6	5	4	3	1	
6	15	14	13	11	10	9	8	7	6	5	3	2	1	6
4	13	12	11	10	9	8	7	6	5	4	3	2	1	
2	11	10	10	9	8	7	6	5	4	3	3	2	1	
0	9	9	8	7	7	6	5	4	4	3	2	1	1	
8	8	7	6	6	6	5	4	3	3	2	2	1	1	7
6	6	5	5	5	4	4	3	3	2	2	1	1	1	
4	4	4	3	3	3	2	2	2	1	1	1	1	0	
2	2	2	2	1	1	1	1	1	1	1	1	0	0	

The ſecond Table of Rumbs;

Latit.		First.		Second		Third		Fourth	
gr.	m	Lon.	dif	Lon.	dif	Lon.	dif	Lon.	dif
0	10	0, 2	2	0, 4	4	0, 7	6	0,10	10
	20	0, 4	2	0, 8	4	0,13	7	0,20	10
	40	0, 6	2	0,12	4	0,20	7	0,30	10
	30	0, 8	2	0,16	4	0,27	6	0,40	10
	50	0,10	2	0,20	5	0,33	7	0,50	10
1	0	0,12	2	0,25	4	0,40	7	1, 0	10
	10	0,14	2	0,29	4	0,47	6	1,10	10
	20	0,16	2	0,33	4	0,53	7	1,20	10
	30	0,18	2	0,37	4	1, 0	7	1,30	19
	40	0,20	2	0,41	4	1, 7	6	1,40	10
	50	0,22	2	0,45	5	1,13	7	1,50	10
2	0	0,24	2	0,50	4	1,20	7	2, 0	10
	10	0,26	2	0,54	4	1,27	6	2,10	10
	20	0,28	2	0,58	4	1,33	7	2,20	10
	30	0,30	2	1, 2	4	1,40	7	2,30	10
	40	0,32	2	1, 6	4	1,47	6	2,40	10
	50	0,34	2	1,10	5	1,53	7	2,50	10
3	0	0,36	2	1,15	4	2, 0	7	3, 0	10
	10	0,38	2	1,19	4	2, 7	6	3,10	10
	20	0,40	2	1,23	4	2,13	7	3,20	10
	30	0,42	2	1,27	4	2,20	7	3,30	10
	40	0,44	2	1,31	4	2,27	6	3,40	10
	50	0,46	2	1,35	4	2,33	7	3,50	10
4	0	0,48	2	1,39	4	2,40	7	4, 0	10
	10	0,50	2	1,43	5	2,47	7	4,10	10
	20	0,52	2	1,48	4	2,54	6	4,20	10
	30	0,54	2	1,52	4	3, 0	7	4,30	10
	40	0,56	2	1,56	4	3, 7	7	4,40	10
	50	0,58	2	2, 0	4	3,14	7	4,50	10
5	0	1, 0	2	2, 4	4	3,21	6	5, 0	10

to finde the difference of Longitudes.

Latit.		Fifft.		Sixt.		Seventh.	
gr.	m	Longit	diff.	Longit	diff.	Longit	diff.
0	10	0,15	15	0,24	24	0,50	50
	20	0,30	15	0,48	24	1,40	51
	30	0,45	15	1,12	24	2,31	50
	40	1, 0	15	1,36	24	3,21	50
	50	1,15	15	2, 0	25	4,11	50
1	0	1,29	14	2,25	24	5, 1	51
	10	1,44	15	2,49	24	5,52	50
	20	1,59	15	3,13	24	6,42	50
	30	2,14	15	3,37	24	7,32	50
	40	2,29	15	4, 1	24	8,22	51
	50	2,44	15	4,25	25	9,13	50
2	0	2,59	15	4,50	24	10, 3	51
	10	3,14	15	5,14	24	10,54	50
	20	3,29	15	5,38	24	11,44	50
	30	3,44	15	6, 2	24	12,34	50
	40	3,59	15	6,26	24	13,24	51
	50	4,14	15	6,50	25	14,15	50
3	0	4,29	15	7,15	24	15, 5	51
	10	4,44	15	7,39	24	15,56	50
	20	4,59	15	8, 3	24	16,46	50
	30	5,14	15	8,27	24	17,36	50
	40	5,29	15	8,51	24	18,26	51
	50	5,44	16	9,15	25	19,17	50
4	0	6, 0	15	9,40	24	20, 7	51
	10	6,15	15	10, 4	24	20,58	50
	20	6,30	15	10,28	25	21,48	51
	30	6,45	15	10,53	24	22,39	50
	40	7, 0	15	11,17	24	23,29	51
	50	7,15	15	11,41	24	24,20	50
5	0	7,30	15	12, 5	24	25,10	51

Latit.		First.		Second		Third		Fourth	
gr.	*m*	*Lon.*	*dif*	*Lon.*	*dif*	*Lon.*	*dif*	*Lon.*	*dif*
5	10	1, 2	2	2, 8	4	3,27	7	5,10	10
	20	1, 4	2	2,12	4	3,34	7	5,20	10
	40	1, 6	2	2,16	4	3,41	7	5,30	10
	30	1, 8	2	2,20	5	3,48	6	5,40	10
	50	1,10	2	2,25	4	3,54	7	5,50	11
6	0	1,12	2	2,29	4	4, 1	6	6, 1	10
	10	1,14	2	2,33	5	4, 7	7	6,11	10
	20	1,16	2	2,38	4	4,14	7	6,21	10
	30	1,18	2	2,42	4	4,21	7	6,31	10
	40	1,20	2	2,46	4	4,28	6	6,41	10
	50	1,22	2	2,50	5	4,34	7	6,51	10
7	0	1,24	2	2,55	4	4,41	7	7, 1	10
	10	1,26	2	2,59	4	4,48	7	7,11	1
	20	1,28	2	3, 3	4	4,55	7	7,21	1
	30	1,30	2	3, 7	4	5, 2	7	7,31	1
	40	1,32	2	3,11	4	5, 9	6	7,41	1
	50	1,34	2	3,15	4	5,15	7	7,51	1
8	0	1,36	2	3,19	5	5,22	7	8, 2	1
	10	1,38	2	3,24	4	5,29	7	8,12	1
	20	1,40	2	3,28	4	5,36	6	8,22	1
	30	1,42	2	3,32	4	5,42	7	8,32	1
	40	1,44	2	3,36	4	5,49	6	8,42	1
	50	1,46	2	3,40	4	5,55	7	8,52	1
9	0	1,48	2	3,44	5	6, 2	7	9, 2	1
	10	1,50	2	3,49	4	6, 9	7	9,12	1
	20	1,52	2	3,53	4	6,16	7	9,22	1
	30	1,54	2	3,57	4	6,23	7	9,33	1
	40	1,56	2	4, 1	5	6,30	6	9,43	1
	50	1,58	2	4, 6	4	6,36	7	9,53	1
10	0	2, 0	2	4,10	4	6,43	7	10, 3	1

Latit.		Fift		Sixt		Seventh.	
gr.	m	Longit.	diff.	Longit.	diff.	Longit.	diff.
5	10	7,45	15	12,29	24	26, 1	50
	20	8, 0	15	12,53	25	26,51	50
	30	8,15	15	13,18	24	27,41	51
	40	8,30	15	13,42	24	28,32	51
	50	8,45	15	14, 6	25	29,23	50
6	0	9, 0	15	14,31	24	30,13	51
	10	9,15	15	14,55	24	31, 4	50
	20	9,30	15	15,19	25	31,54	51
	30	9,45	15	15,44	24	32,45	50
	40	10, 0	15	16, 8	24	33,35	50
	50	10,15	15	16,32	24	34,25	51
7	0	10,30	15	16,56	24	35,16	51
	10	10,45	15	17,20	24	36, 7	51
	20	11, 0	15	17,44	25	36,58	51
	30	11,15	15	18, 9	24	37,49	50
	40	11,30	15	18,33	24	38,39	50
	50	11,45	16	18,57	25	39,29	51
8	0	12, 1	15	19,22	24	40,20	51
	10	12,16	15	19,46	25	41,11	51
	20	12,31	15	20,11	25	42, 2	51
	30	12,46	15	20,36	24	42,53	50
	40	13, 1	15	21, 0	24	43,43	51
	50	13,16	15	21,24	25	44,34	51
9	0	13,31	15	21,49	24	45,25	51
	10	13,46	15	22,13	24	46,16	51
	20	14, 1	15	22,37	25	47, 7	51
	30	14,16	16	23, 2	24	47,58	51
	40	14,32	15	23,26	25	48,49	51
	50	14,47	15	23,51	25	49,40	51
10	0	15, 2	15	24,16	24	50,31	51

Latit.		First		Second		Third		Fourth	
gr.	*m*	*Longi*	*dif*	*Longi*	*dif*	*Longi*	*dif*	*Lon.*	*di*
10	10	2, 2	2	4,14	4	6,50	7	10,13	10
	20	2, 4	2	4,18	4	6,57	6	10,23	11
	30	2, 6	2	4,22	4	7, 3	7	10,34	10
	40	2, 8	2	4,26	5	7,10	7	10,44	10
	50	2,10	2	4,31	4	7,17	6	10,54	10
11	0	2,12	2	4,35	4	7,23	7	11, 4	10
	10	2,14	2	4,39	4	7,30	7	11,14	10
	20	2,16	2	4,43	5	7,37	7	11,24	11
	30	2,18	2	4,48	4	7,44	7	11,35	10
	40	2,20	2	4,52	4	7,51	7	11,45	10
	50	2,22	2	4,56	5	7,58	6	11,55	10
12	0	2,24	2	5, 1	4	8, 4	7	12, 5	10
	10	2,26	2	5, 5	4	8,11	7	12,15	10
	20	2,28	2	5, 9	4	8,18	7	12,25	11
	30	2,30	2	5,13	5	8,25	7	12,36	10
	40	2,32	2	5,18	4	8,32	7	12,46	10
	50	2,34	3	5,22	4	8,39	7	12,56	11
13	0	2,37	2	5,26	4	8,46	6	13, 7	10
	10	2,39	2	5,30	4	8,52	7	13,17	10
	20	2,41	2	5.34	4	8,59	7	13,27	11
	30	2,43	2	5,38	5	9, 6	7	13,38	10
	40	2,45	2	5,43	4	9,13	7	13,48	10
	50	2,47	2	5,47	4	9,20	7	13,58	10
14	0	2,49	2	5,51	4	9,27	7	14, 8	10
	10	2,51	2	5,55	5	9,34	7	14,18	10
	20	2,53	2	6, 0	4	9,41	7	14,28	11
	30	2,55	2	6, 4	4	9,48	6	14,39	10
	40	2,57	2	6, 8	5	9,54	7	14,49	10
	50	2,59	2	6,13	4	10, 1	7	14,59	11
15	0	3, 1	2	6,17	4	10, 8	7	15,10	10

to finde the difference of Longitudes.

Latit.		Fift		Sixt		Seventh.	
gr.	*m*	*Longit.*	*diff.*	*Longit.*	*diff.*	*Longit.*	*diff.*
10	10	15.17	15	24,40	24	51,22	52
	20	15.32	16	25, 4	25	52,14	51
	30	15.48	15	25,29	24	53, 5	51
	40	16. 3	15	25,53	25	53,56	51
	50	16.18	16	26,18	25	54,47	51
11	0	16.34	15	26,43	24	55,38	51
	10	16.49	16	27, 7	25	56,29	51
	20	17. 5	15	27,32	25	57,20	52
	30	17.20	15	27,57	24	58,12	51
	40	17.35	15	28,21	24	59, 3	51
	50	17.50	15	28,45	25	59,54	52
12	0	18. 5	15	29,10	25	60,46	51
	10	18,20	15	29,35	25	61,37	51
	20	18.35	16	30, 0	25	62,28	52
	30	18.51	15	30,25	24	63,20	51
	40	19. 6	15	30,49	25	64,11	52
	50	19,21	16	31,14	25	65, 3	52
13	0	19.37	15	31,39	25	65,55	52
	10	19.52	16	32, 4	25	66,47	51
	20	20. 8	15	32,29	25	67,38	52
	30	20.23	15	32,54	24	68,30	51
	40	20.38	16	33,18	25	69,21	52
	50	20.54	16	33,43	25	70,13	52
14	0	21,10	15	34, 8	25	71, 5	52
	10	20.25	15	34,33	25	71,57	52
	20	21.40	16	34,58	25	72,49	52
	30	21.56	15	35,23	25	73,41	52
	40	22.11	15	35,48	25	74,33	52
	50	22.26	16	36,13	25	75,25	52
15	0	22.42	15	36,38	25	76,17	52

Latit.		First		Second		Third		Fourth	
gr.	*m*	*Lon.*	*di*	*Longi*	*dif*	*Longi*	*dif*	*Longi*	*diff.*
15	10	3, 3	2	6,21	5	10,15	7	15,20	10
	20	3, 5	2	6.26	4	10,22	7	15,30	11
	30	3, 7	2	6,30	4	10,29	7	15,41	10
	40	3, 9	2	6,34	5	10,36	7	15,51	11
	50	3,11	2	6,39	4	10.43	7	16, 2	11
16	0	3,13	2	6,43	4	10,50	7	16,13	10
	10	3,15	2	6,47	4	10,57	7	16,23	10
	20	3,17	2	6,51	5	11, 4	7	16,33	11
	30	3,19	3	6,56	4	11,11	7	16,44	10
	40	3,22	2	7, 0	4	11,18	7	16,54	10
	50	3,24	2	7, 4	4	11,25	7	17, 4	11
17	0	3,26	2	7, 8	5	11,32	7	17,15	10
	10	3,28	2	7,13	4	11,39	7	17,25	10
	20	3,30	2	7·17	4	11,46	7	17,35	11
	30	3,32	2	7,21	5	11,53	7	17,46	10
	40	3,34	2	7,26	4	12, 0	7	17,56	11
	50	3,36	2	7,30	5	12, 7	7	18, 7	11
18	0	3,38	2	7,35	4	12,14	7	18,18	10
	10	3,40	2	7,39	4	12,21	7	18,28	11
	20	3,42	2	7,43	4	12,28	7	18,39	11
	30	3,44	2	7,47	5	12,35	7	18,50	10
	40	3,46	3	7,52	5	12,42	7	19, 0	10
	50	3,49	2	7,57	4	12,49	7	19,10	11
19	0	3,51	2	8, 1	4	12,56	7	19,21	10
	10	3,53	2	8, 5	5	13, 3	7	19,31	11
	20	3,55	2	8,10	4	13,10	7	19,42	11
	30	3,57	2	8,14	4	13,17	7	19,53	10
	40	3,59	2	8,18	5	13,24	7	20, 3	11
	50	4, 1	2	8,23	4	13,31	7	20,14	11
20	0	4, 4	2	8,27	5	13,38	7	20,25	10

to finde the difference of Longitudes.

Latit.		Firſt.		Sixt.		Seventh.	
gr.	*m*	*Longit*	*diff.*	*Longit*	*diff.*	*Longit*	*diff.*
15	10	22,57	16	37, 3	25	77, 9	52
	20	23,13	15	37,28	25	78, 1	52
	30	23,28	16	37,53	25	78,53	52
	40	23,44	16	38,18	25	79,45	52
	50	24, 0	16	38,43	25	80,37	53
16	0	24,16	15	39, 8	25	81,30	52
	10	24,31	16	39,33	25	82,22	52
	20	24,47	16	39,58	26	83,14	53
	30	25, 3	15	40,24	25	84, 7	52
	40	25,18	15	40,49	25	84,59	53
	50	25,33	16	41,14	25	85,52	53
17	0	25,49	15	41,39	25	86,45	52
	10	26, 4	16	42, 4	25	87,37	52
	20	26,20	16	42,29	26	88,29	53
	30	26,36	15	42,55	25	89,22	53
	40	26,51	16	43,20	25	90,15	53
	50	27, 7	16	43,45	26	91, 8	53
18	0	27,23	16	44,11	25	92, 1	53
	10	27,39	16	44,36	25	92,54	53
	20	27,55	16	45, 1	26	93,47	53
	30	28,11	15	45,27	25	94,40	53
	40	28,26	16	45,52	26	95,33	53
	50	28,42	16	46,18	26	96,26	53
19	0	28,58	16	46,44	25	97,19	53
	10	29,14	16	47, 9	26	98,12	53
	20	29,30	16	47,35	26	99, 5	54
	30	29,46	15	48, 1	25	99,59	53
	40	30, 1	16	48,26	25	100,52	53
	50	30,17	16	48,51	26	101,45	53
20	0	30,33	16	49,17	26	102,38	54

Latit.		First		Second		Third		Fourth	
gr.	*m*	*Lon.*	*di*	*Longi*	*dif*	*Longi*	*dif*	*Long,*	*diff.*
20	10	4, 6	3	8,32	4	13,45	7	20,35	11
	20	4, 9	2	8,36	5	13,52	8	20,46	11
	30	4,11	2	8,41	5	14, 0	7	20,57	10
	40	4,13	2	8,46	4	14, 7	7	21, 7	11
	50	4,15	2	8,50	4	14,14	7	21,18	11
21	0	4,17	2	8,54	4	14,21	7	21,29	10
	10	4,19	2	8,58	5	14,28	8	21,39	11
	20	4,21	2	9, 3	5	14,36	7	21,50	11
	30	4,23	2	9, 8	4	14,43	7	22, 1	11
	40	4,25	2	9,12	4	14,50	7	22,12	11
	50	4,27	2	9,16	4	14,57	7	22,23	11
22	0	4,29	2	9,20	5	15, 4	7	22,34	10
	10	4,31	2	9,25	5	15,11	7	22,44	11
	20	4,33	2	9,30	4	15,18	8	22,55	11
	30	4,35	2	9,34	4	15,26	7	23, 6	10
	40	4,37	3	9,38	5	15,33	8	23,16	11
	50	4,40	2	9,43	4	15,41	7	23,27	11
23	0	4,42	2	9,47	5	15,48	7	23,38	11
	10	4,44	2	9,52	5	15,55	8	23,49	11
	20	4,46	2	9,57	5	16, 3	7	24, 0	11
	30	4,48	3	10, 2	4	16,10	7	24,11	11
	40	4,51	2	10, 6	4	16,17	8	24,22	11
	50	4,53	2	10,10	4	16,25	7	24,33	11
24	0	4,55	2	10,14	5	16,32	7	24,44	11
	10	4,57	2	10,19	5	16,39	7	24,55	11
	20	4,59	3	10,24	5	16,46	7	25, 6	11
	30	5, 2	2	10,29	4	16,53	8	25,17	11
	40	5, 4	2	10,33	4	17, 1	7	25,28	11
	50	5, 6	2	10,37	5	17, 8	8	25,39	11
25	0	5, 8	2	10,42	5	17,16	7	25,50	11

Latit.		Fift		Sixt		Seventh.	
gr.	*m*	*Longit.*	*diff.*	*Longit.*	*diff.*	*Longit.*	*diff.*
20	10	30,49	16	49,43	26	103,32	54
	20	31, 5	16	50, 9	26	104,26	54
	30	31,21	16	50,35	25	105,20	53
	40	31,37	16	51, 0	26	106,13	54
	50	31,53	16	51,26	26	107, 7	54
21	0	32, 9	16	51,52	26	108, 1	54
	10	32,25	16	52,18	26	108,55	54
	20	32,41	16	52,44	26	109,49	54
	30	32,57	16	53,10	26	110,43	54
	40	33,13	16	53,36	26	111,37	54
	50	33,29	17	54, 2	26	112,31	54
22	0	33,46	16	54,28	26	113,25	54
	10	34, 2	16	54,54	26	114,19	54
	20	34,18	16	55,20	26	115,13	55
	30	34,34	16	55,46	26	116, 8	54
	40	34,50	16	56,12	26	117, 2	55
	50	35, 6	17	56,38	27	117,57	55
23	0	35,23	16	57, 5	26	118,52	54
	10	35,39	16	57,31	26	119,46	55
	20	35,55	17	57,57	26	120,41	55
	30	36,12	16	58,24	26	121,36	55
	40	36,28	16	58,50	26	122,31	55
	50	36,44	17	59,16	27	123,26	55
24	0	37, 1	16	59,43	26	124,21	55
	10	37,17	16	60, 9	26	125,16	55
	20	37,33	17	60,35	27	126,11	55
	30	37,50	16	61, 2	26	127, 6	55
	40	38, 6	17	61,28	27	128, 1	55
	50	38,23	17	61,55	27	128,56	56
25	0	38,40	16	62,22	26	129,52	55

Latit.		First		Second		Third		Fourth	
gr.	m	Longi	dif	Longi	dif	Longi	dif	Lon.	di
25	10	5.10	2	10,47	4	17.23	7	26, 1	11
	20	5.12	2	10,51	5	17.30	8	26,12	11
	30	5.14	3	10,56	5	17.38	7	26,23	11
	40	5.17	2	11, 1	4	17.45	7	26,34	11
	50	5.19	2	11, 5	5	17.52	8	26,45	11
26	0	5.21	2	11,10	4	18, 0	7	26,56	11
	10	5.23	2	11,14	4	18, 7	8	27, 7	11
	20	5.25	2	11,18	5	18,15	8	27,18	11
	30	5.27	3	11,23	5	18,23	7	27,29	11
	40	5.30	2	11,28	5	18,30	7	27,40	11
	50	5.32	2	11,33	4	18,37	8	27,51	12
27	0	5.34	2	11,37	5	18,45	7	28, 3	11
	10	5.36	3	11,42	5	18,52	7	28,14	11
	20	5.39	2	11,47	4	18,59	8	28,25	12
	30	5.41	2	11,51	5	19, 7	8	28,37	11
	40	5.43	3	11,56	5	19,15	7	28,48	11
	50	5.46	2	12, 1	4	19,22	8	28,59	12
28	0	5.48	2	12, 5	5	19,30	7	29,11	11
	10	5.50	2	12,10	5	19,37	8	29,22	11
	20	5.52	3	12,15	5	19,45	8	29,33	12
	30	5.55	2	12,20	4	19,53	7	29,45	11
	40	5.57	3	12,24	5	20, 0	8	29,56	11
	50	6, 0	2	12,29	4	20, 8	8	30, 7	12
29	0	6, 2	2	12,33	5	20,16	7	30,19	11
	10	6, 4	3	12,38	5	20,23	8	30,30	12
	20	6, 7	2	12,43	5	20,31	8	30,42	12
	30	6, 9	2	12,48	5	20,39	7	30,54	11
	40	6,11	2	12,53	4	20,46	8	31, 5	11
	50	6,13	3	12,57	5	20,54	8	31,16	12
30	0	6,16	2	13, 2	5	21, 2	7	31,28	11

to finde the difference of Longitudes.

Latit.		Fift		Sixt		Seventh.	
gr.	*m*	*Longit.*	*diff.*	*Longit.*	*diff.*	*Longit.*	*diff.*
25	10	38.56	16	62.48	27	130.47	56
	20	39.12	17	63.15	27	131.43	56
	30	39.29	16	63.42	26	132.39	55
	40	39.45	17	64. 8	27	133.34	56
	50	40. 2	17	64.35	27	134.30	56
26	0	40.19	16	65. 2	27	135.26	56
	10	40.35	17	65.29	27	136.22	56
	20	40.52	17	65.56	27	137.18	56
	30	41. 9	17	66.23	27	138.14	56
	40	41.26	17	66.50	27	139.10	56
	50	41.43	17	67.17	27	140. 6	57
27	0	42. 0	16	67.44	27	141. 3	56
	10	42.16	17	68.11	27	141.59	57
	20	42.33	17	68.38	28	142.56	57
	30	42.50	16	69. 6	27	143.53	56
	40	43. 6	17	69.33	27	144.49	57
	50	43.23	17	70. 0	28	145.46	57
28	0	43.40	17	70.28	27	146.43	57
	10	43.57	17	70.55	27	147.40	57
	20	44.14	18	71.22	28	148.37	57
	30	44.32	17	71.50	27	149.34	57
	40	44.49	17	72.17	27	150.31	57
	50	45. 6	17	72.44	28	151.28	58
29	0	45.23	17	73.12	27	152.26	58
	10	45.40	17	73.39	28	153.24	58
	20	45.57	17	74. 7	28	154.22	58
	30	46.14	17	74.35	28	155.20	58
	40	46.31	17	75. 3	28	156.18	58
	50	46.48	18	75.31	28	157.16	58
30	0	47. 6	17	75.59	28	158.14	58

Latit.		First		Second		Third		Fourth	
gr.	m	Longi	dif	Longi	dif	Longi	dif	Lon.	dif
30	10	6.18	2	13. 7	5	25, 9	8	31'39	12
	20	6.20	2	13.12	4	25,17	8	31,51	12
	30	6.22	3	13.16	5	25,25	7	32, 3	11
	40	6.25	2	13.21	5	25,32	8	32,14	12
	50	6.27	2	13.26	5	25,40	8	32,26	12
31	0	6.29	3	13.31	5	25,48	8	32,38	11
	10	6.32	2	13.36	5	25,56	8	32,49	12
	20	6.34	3	13.41	5	26, 4	8	33, 1	12
	30	6.37	2	13.46	5	26,12	7	33,13	11
	40	6.39	2	13.51	5	26,19	8	33,24	12
	50	6.41	2	13.56	4	26,27	8	33,36	12
32	0	6.43	3	14. 0	5	26,35	8	33,48	12
	10	6.46	2	14. 5	5	26,43	8	34, 0	12
	20	6.48	3	14.10	5	26,51	8	34,12	12
	30	6.51	2	14.15	5	26,59	8	34,24	11
	40	6.53	2	14.20	4	27, 7	8	34,35	12
	50	6.55	3	14.24	5	27,15	8	34,47	12
33	0	6.58	2	14.29	5	27,23	8	34,59	12
	10	7. 0	3	14.34	5	27,31	8	35,11	12
	20	7. 3	2	14.39	6	27,39	8	35,23	12
	30	7. 5	3	14.45	5	27,47	8	35,35	12
	40	7. 8	2	14.50	5	27,55	8	35,47	12
	50	7.10	2	14.55	5	28, 3	8	35,59	12
34	0	7.12	2	15. 0	5	28,11	8	36,11	12
	10	7.14	3	15. 5	4	28,19	8	36,23	12
	20	7.17	3	15. 9	5	28,27	8	36,35	13
	30	7.20	2	15.14	5	28,35	8	36.48	12
	40	7.22	2	15.19	5	28,43	8	37, 0	12
	50	7.24	2	15,24	6	28,51	9	37,12	12
35	0	7.26	3	15.30	5	29, 0	8	37,24	12

to finde the difference of Longitudes.

atit.		Fift		Sixt		Seventh.	
r.	m	Longit.	diff.	Longit.	diff.	Longit.	diff.
0	10	47.23	17	76,27	28	159.12	58
	20	47.40	18	76.55	28	160,10	58
	30	47.58	17	77.23	28	161, 8	58
	40	48.15	17	77.51	28	162, 6	59
	50	48.32	18	78,19	28	163, 5	59
1	0	48.50	17	78.47	28	164, 4	58
	10	49. 7	18	79.15	28	165, 2	59
	20	49.25	18	79.43	29	166, 1	59
	30	49.43	17	80,12	28	167, 0	59
	40	50. 0	18	80,40	28	167,59	59
	50	50.18	18	81. 8	29	168,58	60
2	0	50.36	17	81.37	28	169,58	59
	10	50.53	17	82. 5	28	170,57	59
	20	51.10	18	82,33	29	171,56	59
	30	51.28	18	83. 2	29	172,55	60
	40	51.46	18	83.31	29	173,55	60
	50	52. 4	18	84. 0	29	174,55	60
3	0	52,22	18	84.29	28	175,55	60
	10	52.40	18	84.57	29	176,55	60
	20	52.58	18	85.26	29	177,55	60
	30	53.16	18	85.55	29	178,55	60
	40	53.34	18	86.24	29	179,55	61
	50	53.52	18	86.53	29	180,56	61
4	0	54.10	18	87.22	29	181,57	60
	10	54.28	18	87.51	29	182,57	61
	20	54.46	18	88.20	30	183,58	61
	30	55. 4	18	88.50	29	184,59	61
	40	55.22	18	89.19	29	186, 0	61
	50	55.40	19	89.48	30	187, 1	61
5	0	55.59	18	90.18	29	188, 2	61

Latit.		First		Second		Third		Fourth	
gr.	m	Longi	dif	Longi	dif	Longi	dif	Lon.	dif
35	10	7,29	2	15,35	5	25, 8	8	37,36	12
	20	7,31	3	15,40	5	25,16	8	37,48	13
	30	7,34	2	15,45	5	25,24	8	38, 1	12
	40	7,36	3	15,50	5	25,32	8	38,13	12
	50	7,39	2	15,55	5	25,40	9	38,25	13
36	0	7,41	2	16, 0	5	25,49	8	38,38	12
	10	7,43	3	16, 5	6	25,57	8	38,50	12
	20	7,46	2	16,11	5	26, 5	9	39, 2	13
	30	7,48	3	16,16	5	26,14	8	39,15	12
	40	7,51	2	16,21	5	26,22	8	39,27	12
	50	7,53	2	16,26	5	26,30	8	39,39	13
37	0	7,55	3	16,31	5	26,38	8	39,52	12
	10	7,58	3	16,36	5	26,46	9	40, 4	13
	20	8, 1	2	16,41	6	26,55	9	40,17	13
	30	8, 3	3	16,47	5	27, 4	8	40,30	12
	40	8, 6	2	16,52	5	27,12	8	40,42	13
	50	8, 8	3	16,57	5	27,20	9	40,55	13
38	0	8,11	3	17, 2	5	27,29	8	41, 8	12
	10	8,14	2	17, 7	5	27,37	9	41,20	13
	20	8,16	3	17,12	6	27,46	9	41,33	13
	30	8,19	2	17,18	6	27,55	8	41,46	13
	40	8,21	3	17,24	5	28, 3	8	41,59	13
	50	8,24	2	17,29	5	28,11	9	42,12	13
39	0	8,26	3	17,34	5	28,20	8	42,25	13
	10	8,29	2	17,39	5	28,28	9	42,38	13
	20	8,31	3	17,44	5	28,37	9	42,51	13
	30	8,34	3	17,49	6	28,46	9	43, 4	13
	40	8,37	2	17,55	6	28,55	9	43,17	13
	50	8,39	3	18, 1	5	29, 4	9	43,30	13
40	0	8,42	2	18, 6	6	29,13	8	43,43	13

Latit.		Fift		Sixt		Seventh.	
gr.	*m*	*Longit.*	*diff.*	*Longit.*	*diff.*	*Longit.*	*diff.*
35	10	56,17	18	90.47	30	189, 3	62
	20	56,35	19	91.17	30	190, 5	62
	30	56,54	18	91.47	29	191, 7	62
	40	57,12	18	92.16	30	192, 9	62
	50	57,30	19	92.46	30	193,11	62
36	0	57,49	18	93.16	30	194,13	62
	10	58, 7	19	93.46	30	195,15	62
	20	58,26	19	94.16	30	196,17	63
	30	58,45	18	94.46	30	197,20	62
	40	59, 3	19	95.16	30	198,22	63
	50	59,22	19	95.46	30	199,25	63
37	0	59,41	18	96.16	30	200,28	63
	10	59,59	19	96,46	30	201,31	63
	20	60,18	19	97,16	30	202,34	63
	30	60,37	19	97,47	31	203,37	64
	40	60,56	19	98,17	30	204,41	64
	50	61,15	19	98,48	31	205,45	64
38	0	61,34	19	99.19	30	206,49	63
	10	61,53	19	99,49	31	207,52	64
	20	62,12	19	100,20	31	208,56	64
	30	62,31	19	100,51	31	210, 0	64
	40	62,50	19	101,22	31	211, 4	65
	50	63, 9	20	101,53	31	212, 9	65
9	0	63,29	19	102,24	31	213,14	64
	10	63,48	19	102,55	31	214,18	65
	20	64, 7	20	103,26	31	215,23	65
	30	64,27	19	103,57	31	216,28	65
	40	64,46	19	104,28	31	217,33	66
	50	65, 5	20	104,59	32	218,39	66
0	0	65,25	19	105,31	31	219,45	65

Latit.		First.		Second		Third		Fourth	
gr.	m	Lon.	dif	Lon.	dif	Lon.	dif	Lon.	dif
40	10	8,44	1	18,12	6	29,21	9	43,56	13
	20	8,47	2	18,18	5	29,30	9	44, 9	13
	30	8,49	3	18,23	5	29,39	8	44,22	13
	40	8,52	2	18,28	6	29,47	9	44,35	13
	50	8,54	3	18,34	5	29,56	9	44,48	14
41	0	8,57	3	18,39	5	30, 5	9	45, 2	13
	10	9, 0	3	18,44	6	30,14	9	45,15	13
	20	9, 3	3	18,50	6	30,23	9	45,28	13
	30	9, 6	2	18,56	5	30,32	9	45,41	13
	40	9, 8	3	19, 1	5	30,41	9	45,54	14
	50	9,11	2	19, 6	6	30,50	9	46, 8	14
42	0	9,13	3	19,12	6	30,59	9	46,22	13
	10	9,16	2	19,18	5	31, 8	9	46,35	13
	20	9,18	3	19,23	6	31,17	9	46,48	14
	30	9,21	3	19,29	6	31,26	9	47, 2	13
	40	9,24	3	19,35	5	31,35	9	47,15	14
	50	9,27	2	19,40	6	31,44	9	47,29	14
43	0	9,30	3	19,46	6	31,53	9	47,43	13
	10	9,32	3	19,52	5	32, 2	9	47,56	14
	20	9,35	2	19,57	6	32,11	9	48,10	14
	30	9,37	3	20, 3	6	32,20	9	48,24	14
	40	9,40	3	20, 9	6	32,29	9	48,38	14
	50	9,43	3	20,15	5	32,38	10	48,52	14
44	0	9,45	2	20,20	6	32,48	9	49, 6	14
	10	9,48	3	20,26	6	32,57	9	49,20	14
	20	9,51	3	20,32	6	33, 6	10	49,34	14
	30	9,54	3	20,38	6	33,16	9	49,48	14
	40	9,57	3	20,44	6	33,25	9	50, 2	14
	50	10, 0	3	20,50	5	33,34	10	50,16	14
45	0	10, 3	3	20,55	6	33,44	9	50,30	14

to finde the difference of Longitudes.

Latit.		Fifſt.		Sixt.		Seventh.	
gr.	m	Longit	diff.	Longit	diff.	Longi	diff.
40	10	65,44	20	106, 2	32	220,50	66
	20	66, 8	20	106,34	32	221,56	66
	30	66,24	19	107, 6	32	223, 2	66
	40	66,44	20	107,38	32	224, 8	67
	50	67, 3	20	108,10	32	225,15	67
41	0	67,23	20	108,42	32	226,22	66
	10	67,43	20	109,14	32	227,28	67
	20	68, 3	20	109,46	32	228,35	67
	30	68,23	20	110,18	32	229,42	67
	40	68,43	20	110,50	32	230,49	67
	50	69, 3	20	111,22	33	231,56	68
42	0	69,23	20	111,55	32	233, 4	68
	10	69,43	20	112,27	33	234,12	68
	20	70, 3	20	113, 0	33	235,20	68
	30	70,23	20	113,33	32	236,28	68
	40	70,43	21	114, 5	33	237,36	68
	50	71, 4	21	114,38	33	238,44	69
3	0	71,25	20	115,11	33	239,53	69
	10	71,45	20	115,44	33	241, 2	69
	20	72, 5	21	116,17	34	242,11	69
	30	72,26	20	116,51	33	243,20	69
	40	72,46	21	117,24	33	244,29	70
	50	73, 7	21	117,57	34	245,39	70
4	0	73,28	21	118,31	34	246,49	70
	10	73,49	21	119, 5	34	247,59	70
	20	74,10	21	119,39	34	249, 9	70
	30	74,31	20	120,13	34	250,19	71
	40	74,51	21	120,47	34	251,30	71
	50	75,12	22	121,21	34	252,41	71
5	0	75,34	21	121,55	34	253,52	71

Latit.		Firſt.		Second		Third		Fourth	
gr.	*m*	*Lon.*	*dif*	*Lon.*	*dif*	*Lon.*	*dif*	*Lon.*	*dif.*
45	10	10, 6	2	21, 1	6	33,53	10	50,44	14
	20	10, 8	3	21, 7	6	34, 3	10	50,58	14
	30	10,11	3	21,13	6	34,13	9	51,12	14
	40	10,14	3	21,19	5	34,22	9	51,26	15
	50	10,17	3	21,24	6	34,31	10	51,41	15
46	0	10,20	2	21,30	6	34,41	10	51,56	14
	10	10,22	3	21,36	6	34,51	10	52,10	14
	20	10,25	3	21,42	6	35, 1	10	52,24	15
	30	10,28	3	21,48	6	35,11	9	52,39	14
	40	10,31	3	21,54	6	35,20	10	52,53	14
	50	10,34	3	22, 0	7	35,30	10	53, 7	15
47	0	10,37	3	22, 7	6	35,40	9	53,22	15
	10	10,40	3	22,13	6	35,49	10	53,37	15
	20	10,43	2	22,19	6	35,59	10	53,52	15
	30	10,45	3	22,25	6	36, 9	10	54, 7	14
	40	10,48	3	22,31	6	36,19	10	54,21	15
	50	10,51	4	22,37	6	36,29	10	54,36	15
48	0	10,55	3	22,43	6	36,39	10	54,51	15
	10	10,58	3	22,49	7	36,49	10	55, 6	15
	20	11, 1	3	22,56	6	36,59	10	55,21	15
	30	11, 4	3	23, 2	6	37, 9	10	55,36	15
	40	11, 7	3	23. 8	7	37,19	10	55,51	15
	50	11,10	3	23,15	6	37,29	11	56, 6	16
49	0	11,13	3	23,21	6	37,40	10	56,22	15
	10	11,16	3	23,27	6	37,50	10	56,37	15
	20	11,19	3	23,33	6	38, 0	10	56,52	16
	30	11,22	3	23,39	6	38,10	10	57, 8	15
	40	11,25	3	23,45	7	38,20	10	57,23	15
	50	11,28	3	23,52	7	38,30	11	57,38	16
50	0	11,31	3	23,59	6	38,41	10	57,54	15

Latit.		Fift.		Sixt		Seventh.	
gr.	*m*	*Longit.*	*dif.*	*Longit.*	*dif.*	*Longit.*	*diff.*
45	10	75,55	21	122,29	34	255, 3	71
	20	76,16	22	123, 3	34	256,14	72
	30	76,38	21	123,37	34	257,26	72
	40	76,59	22	124,11	35	258,38	72
	50	77,21	22	124,46	35	259,50	72
46	0	77,43	21	125,21	35	261, 2	72
	10	78, 4	21	125,56	35	262,14	73
	20	78,25	22	126,31	35	263,27	73
	30	78,47	22	127, 6	35	264,40	73
	40	79, 9	22	127,41	35	265,53	73
	50	79,31	22	128,16	36	267, 6	74
47	0	79,53	22	128,52	35	268,20	74
	10	80,15	22	129,27	35	269,34	74
	20	80,37	22	130, 2	36	270,48	75
	30	80,59	22	130,38	36	272, 3	74
	40	81,21	22	131,14	36	273,17	75
	50	81,43	22	131,50	36	274,32	75
48	0	82, 5	22	132,26	36	275,47	75
	10	82,27	23	133, 2	36	277, 2	75
	20	82,50	23	133,38	37	278,17	76
	30	83,13	22	134,15	36	279,33	76
	40	83,35	23	134,51	37	280,49	77
	50	83,58	23	135,28	37	282, 6	77
49	0	84,21	23	136, 5	36	283,23	76
	10	84,44	23	136,41	37	284,39	77
	20	85, 7	23	137,18	37	285,56	77
	30	85,30	23	137,55	37	287,13	78
	40	85,53	23	138,32	38	288,31	78
	50	86,16	24	139,10	38	289,49	78
50	0	86,40	23	139,48	37	291, 7	78

The ſecond Table of Rumbs,

Latit.		First		Second		Third		Fourth	
gr.	*m*	*Lon.*	*di*	*Longi*	*dif*	*Longi*	*dif*	*Longi*	*diff.*
50	10	11,34	3	24, 6	7	38,51	11	58, 9	16
	20	11,37	3	24,12	7	39, 2	11	58,25	16
	30	11,40	4	24,19	7	39,13	10	58,41	15
	40	11,44	3	24,26	6	39,23	10	58,56	16
	50	11,47	3	24,32	6	39,33	11	59,12	16
51	0	11,50	3	24,38	7	39,44	10	59,28	16
	10	11,53	3	24,45	6	39,54	11	59,44	16
	20	11,56	4	24,51	7	40, 5	11	60, 0	16
	30	12, 0	3	24,58	7	40,16	11	60,16	16
	40	12, 3	3	25, 5	7	40,27	11	60,32	16
	50	12. 6	3	25,12	6	40,38	11	60,48	17
52	0	12, 9	3	25,18	7	40.49	11	61, 5	16
	10	12,12	3	25,25	7	41, 0	11	61,21	16
	20	12,15	4	25,32	7	41,11	11	61,37	17
	30	12,19	3	25,39	6	41,22	11	61,54	16
	40	12,22	3	25,45	7	41,33	11	62,10	17
	50	12,25	3	25,52	7	41,44	11	62,27	17
53	0	12,28	4	25,59	7	41,55	11	62,44	16
	10	12,32	4	26, 6	7	42, 6	11	63, 0	17
	20	12,36	3	26,13	7	42,17	11	63,17	17
	30	12,39	3	26,20	7	42,28	11	63,34	16
	40	12,42	3	26,27	7	42,39	11	63,50	17
	50	12,45	4	26,34	7	42,50	12	64, 7	17
54	0	12,49	3	26,41	7	43, 2	11	64,24	17
	10	12,52	4	26,48	7	43,41	11	64,41	17
	20	12,56	3	26,55	7	43,24	12	64,58	18
	30	12,59	3	27, 2	7	43,36	11	65,16	17
	40	13, 2	4	27, 9	7	43,47	12	65,33	17
	50	13, 6	4	27,16	7	43,59	12	65,50	18
55	0	13,10	3	27,23	7	44,11	11	66, 8	17

Latit.		Fift		Sixt		Seventh.	
gr.	*m*	*Longit.*	*diff.*	*Longit.*	*diff.*	*Longit.*	*diff.*
50	10	87, 3	23	140,25	38	292,25	78
	20	87,26	24	141, 3	38	293,43	79
	30	87,50	23	141,41	38	295, 2	79
	40	88,13	24	142,19	38	296,21	80
	50	88,37	24	142,57	38	297,41	80
51	0	89, 1	23	143,35	38	299, 1	80
	10	89,24	24	144,13	39	300,21	80
	20	89,48	24	144,52	39	301,41	81
	30	90,12	24	145,31	39	303, 2	81
	40	90,36	24	146,10	39	304,23	81
	50	91, 0	25	146,49	39	305,44	81
52	0	91,25	24	147,28	39	307, 5	82
	10	91,49	24	148, 7	39	308,27	82
	20	92,13	25	148,46	40	309,49	83
	30	92,38	24	149,26	40	311,12	82
	40	93, 2	25	150, 6	40	312,34	83
	50	93,27	25	150,46	40	313,57	83
53	0	93,52	25	151,26	40	315,20	84
	10	94,17	25	152, 6	40	316,44	84
	20	94,42	26	152,46	41	318, 8	85
	30	95, 8	25	153,27	40	319,33	84
	40	95,33	25	154, 7	41	320,57	85
	50	96,58	25	154,48	41	322,22	85
54	0	96,23	25	155,29	41	323,47	86
	10	96,48	26	156,10	41	325,13	86
	20	97,14	26	156,51	42	326,39	87
	30	97,40	26	157,33	42	328, 6	87
	40	98, 6	26	158,15	42	329,33	87
	50	98,32	26	158,57	42	331, 0	87
55	0	98,58	26	159,39	42	332,27	88

Latit.		Firſt		Second		Third		Fourth	
gr.	m	Lon.	di	Longi	dif	Longi	dif	Longi	diff.
55	10	13,13	3	27,30	8	44,22	12	66,25	17
	20	13,16	4	27,38	7	44,34	12	66,42	18
	30	13,20	3	27,45	7	44,46	12	67, 0	18
	40	13,23	4	27,52	8	44,58	12	67,18	18
	50	13,27	3	28, 0	7	45.10	12	67,36	18
56	0	13,30	3	28, 7	8	45.22	12	67,54	18
	10	13,33	4	28,15	8	45,34	12	68,12	18
	20	13,37	4	28,23	7	45,46	12	68,30	18
	30	13,41	3	28,30	7	45,58	12	68,48	18
	40	13,44	4	28,37	8	46,10	12	69, 6	18
	50	13,48	4	28,45	7	46,22	13	69,24	18
57	0	13,52	4	28.52	8	46,35	12	69,42	18
	10	13,56	4	29, 0	8	46,47	12	70, 0	19
	20	14, 0	3	29, 8	7	46,59	13	70,19	19
	30	14. 3	4	29,15	8	47,12	12	70,38	18
	40	14, 7	4	29,23	8	47,24	12	70,56	19
	50	14,11	3	29,31	7	47,36	13	71,15	19
58	0	14,14	4	29,38	8	47,49	12	71,34	19
	10	14,18	4	29,46	8	48, 1	13	71,53	19
	20	14,22	4	29,54	8	48,14	13	72,12	19
	30	14,26	3	30, 2	8	48,27	13	72,31	19
	40	14,29	4	30,10	8	48,40	13	72,50	19
	50	14,33	4	30,18	8	48,53	13	73, 9	20
59	0	14,37	4	30,26	9	49, 6	13	73,29	19
	10	14,41	3	30,35	8	49,19	13	73,48	19
	20	14,44	4	30,43	8	49,32	13	74, 7	20
	30	14,48	4	30,51	8	49,45	13	74,27	20
	40	14,52	4	30,59	8	49,58	13	74,47	20
	50	14,56	4	31, 7	8	50,11	14	75, 7	20
60	0	15, 0	4	31,15	9	50,25	13	75,27	20

Latit.		Fift		Sixt		Seventh.	
gr.	*m*	*Longit.*	*diff.*	*Longit.*	*diff.*	*Longit.*	*diff.*
55	10	99,24	26	160,21	42	333,55	88
	20	99,50	27	161, 3	43	335,23	89
	30	100,17	26	161,46	43	336,52	89
	40	100,43	27	162,29	43	338,21	89
	50	101,10	27	163,12	43	339,50	89
56	0	101,37	27	163,55	43	341,19	90
	10	102, 4	27	164,38	43	342,49	91
	20	102,31	27	165,21	44	344,20	91
	30	102,58	27	166, 5	44	345,51	91
	40	103,25	27	166,49	44	347,22	92
	50	103,52	27	167,33	45	348,54	92
57	0	104,19	27	168,18	44	350,26	93
	10	104,46	28	169, 2	44	351,59	93
	20	105,14	28	169,46	45	353,32	93
	30	105,42	28	170,31	45	355, 5	94
	40	106,10	28	171,16	45	356,39	94
	50	106,38	29	172, 1	46	358,13	94
58	0	107, 7	28	172,47	45	359,47	95
	10	107,35	28	173,32	46	361,22	96
	20	108, 3	29	174,18	46	362,58	96
	30	108,32	28	175, 4	46	364,34	97
	40	109, 0	29	175,50	47	366,11	97
	50	109,29	29	176,37	47	367,48	97
59	0	109,58	29	177,24	47	369,25	98
	10	110,27	29	178,11	47	371, 3	98
	20	110,56	30	178,58	48	372,41	99
	30	111,26	29	179,46	48	374,20	99
	40	111,55	30	180,34	48	375,59	100
	50	112,25	30	181,22	48	377,39	100
60	0	112,55	30	182,10	48	379,19	101

Latit.		First		Second		Third		Fourth	
gr.	m	Longi	dif	Longi	dif	Longi	dif	Lon.	di
60	10	15, 4	4	31,24	8	50,38	13	75,47	20
	20	15, 8	4	31,32	9	50,51	14	76, 7	20
	30	15,12	4	31,41	8	51, 5	14	76,27	20
	40	15,16	4	31,49	8	51,19	14	76,47	21
	50	15,20	5	31,57	8	51,33	14	77, 8	21
61	0	15,25	4	32, 5	9	51,47	13	77,29	20
	10	15,29	4	32,14	9	52, 0	14	77,49	21
	20	15,33	4	32,23	9	52,14	14	78,10	21
	30	15,37	4	32,32	9	52,28	14	78,31	21
	40	15,41	5	32,41	8	52,42	14	78,52	21
	50	15,46	4	32,49	9	52,56	15	79,13	21
62	0	15,50	4	32,58	9	53,11	14	79,34	21
	10	15,54	4	33, 7	9	53,25	14	79,55	22
	20	15,58	5	33,16	9	53,39	14	80,17	22
	30	16, 3	4	33,25	9	53,53	15	80,39	22
	40	16, 7	5	33,34	9	54, 8	15	81, 1	22
	50	16,12	4	33,43	9	54,23	15	81,23	22
63	0	16,16	4	33,52	9	54,38	14	81,45	22
	10	16,20	5	34, 1	9	54,52	15	82, 7	22
	20	16,25	4	34,10	9	55, 7	15	82,29	22
	30	16,29	5	34,19	9	55,22	15	82,51	22
	40	16,34	4	34,28	10	55,37	15	83,13	23
	50	16,38	5	34,38	9	55,52	15	83,36	23
64	0	16,43	4	34,47	10	56, 7	15	83,59	23
	10	16,47	5	34,57	10	56,22	15	84,22	23
	20	16,52	4	35, 7	9	56,37	16	84,45	23
	30	16,56	5	35,16	10	56,53	16	85, 8	23
	40	17, 1	4	35,26	10	57, 9	16	85,31	23
	50	17, 5	5	35,36	9	57,25	16	85,54	24
65	0	17,10	5	35,45	10	57,41	15	86,18	24

Latit.		Fift.		Sixt		Seventh.	
gr.	m	Longit.	dif.	Longit.	dif.	Longit.	dif
60	10	113,25	30	182,58	48	381, 0	101
	20	113,55	31	183,46	49	382,41	102
	30	114,26	30	184,35	49	384,23	102
	40	114,56	31	185,24	50	386, 5	103
	50	115,27	31	186,14	50	387,48	103
61	0	115,58	31	187, 4	50	389,31	104
	10	116,29	31	187,54	50	391,15	105
	20	117, 0	31	188,44	50	393, 0	105
	30	117,31	31	189,34	51	394,45	106
	40	118, 2	31	190,25	51	396,31	106
	50	118,33	32	191,16	51	398,17	107
62	0	119, 5	32	192, 7	51	400, 4	108
	10	119,37	32	192,58	52	401,52	108
	20	120, 9	33	193,50	52	403,40	108
	30	120,42	32	194,42	52	405,28	109
	40	121,14	33	195,34	53	407,17	109
	50	121,47	33	196,27	53	409, 6	110
63	0	122,20	33	197,20	53	410,56	112
	10	122,53	33	198,13	54	412,48	112
	20	123,26	34	199, 7	54	414,40	112
	30	124, 0	33	200, 1	54	416,32	113
	40	124,33	34	200,55	55	418,25	114
	50	125, 7	34	201,50	55	420,19	114
64	0	125,41	34	202,45	55	422,13	115
	10	126,15	35	203,40	56	424, 8	116
	20	126,50	35	204,36	56	426, 4	116
	30	127,25	35	205,32	56	428, 0	117
	40	128, 0	35	206,28	57	429,57	118
	50	128,35	35	207,25	57	431,55	118
65	0	129,10	35	208,22	57	433,53	120

Latit.		First		Second		Third		Fourth	
gr.	*m*	*Longi*	*dif*	*Longi*	*dif*	*Longi*	*dif*	*Lon.*	*di*
65	10	17.15	4	35,55	10	57.56	16	86,42	24
	20	17.19	5	36, 5	10	58,12	16	87, 6	24
	30	17.24	5	36,15	10	58,28	16	87,30	24
	40	17.29	5	36,25	10	58,44	16	87,54	24
	50	17.34	5	36,35	10	59, 0	17	88,18	25
66	0	17.39	4	36,45	10	59.17	16	88,43	24
	10	17.43	5	36,55	11	59,33	16	89, 7	25
	20	17.48	5	37, 6	10	59,49	17	89,32	25
	30	17.53	5	37.16	10	60, 6	17	89,57	25
	40	17.58	5	37,26	11	60,23	17	90,22	25
	50	18, 3	5	37,37	11	60,40	18	90,47	26
67	0	18, 8	5	37,48	10	60,58	17	91,13	26
	10	18,13	6	37,58	11	61,15	17	91,39	26
	20	18,19	5	38, 9	11	61.32	17	92, 5	26
	30	18,24	6	38,20	11	61,49	18	92,31	26
	40	18.30	5	38,31	11	62, 7	18	92,57	26
	50	18.35	5	38,42	11	62,25	18	93,23	27
68	0	18.40	5	38,53	11	62,43	17	93.50	27
	10	18,45	6	39, 4	11	63, 0	18	94,17	27
	20	18.51	6	39,15	11	63,18	18	94,44	27
	30	18,57	5	39,26	12	63,36	18	95,11	27
	40	19. 2	5	39,38	11	63,54	19	95,38	28
	50	19. 7	6	39,49	11	64,13	19	96, 6	28
69	0	19,13	5	40, 0	12	64,32	18	96,34	28
	10	19.18	6	40,12	12	64,50	19	97, 2	28
	20	19.24	5	40,24	11	65, 9	19	97,30	28
	30	19.29	6	40,35	12	65,28	19	97,58	29
	40	19.35	6	40,47	11	65,47	19	98,27	29
	50	19.41	6	40,58	12	66, 6	20	98,56	29
70	0	19.47	6	41,10	12	66,26	20	99,25	29

Latit.		Fift.		Sixt.		Seventh.	
gr.	*m*	*Longit*	*diff.*	*Longit*	*diff.*	*Longit*	*diff.*
65	10	129,45	36	209,19	58	435,53	120
	20	130,21	36	210,17	58	437,53	121
	30	130,57	36	211,15	58	439,54	122
	40	131,33	36	212,13	59	441,56	122
	50	132, 9	37	213,12	59	443,58	123
66	0	132,46	37	214,11	60	446, 1	124
	10	133,23	37	215,11	60	448, 5	125
	20	134, 0	38	216,11	60	450,10	125
	30	134,38	38	217,11	61	452,15	126
	40	135,16	38	218,12	61	454,21	127
	50	135,54	38	219,13	61	456,28	129
67	0	136,32	38	220,14	62	458,37	129
	10	137,10	39	221,16	62	460,46	130
	20	137,49	39	222,18	63	462,56	131
	30	138,28	39	223,21	63	465, 7	132
	40	139, 7	39	224,24	64	467,19	133
	50	139,46	40	225,28	64	469,32	134
68	0	140,26	40	226,32	65	471,46	135
	10	141, 6	41	227,37	65	474, 1	136
	20	141,47	41	228,42	66	476,17	136
	30	142,28	41	229,48	66	478,33	138
	40	143, 9	41	230,54	67	480,51	138
	50	143,50	41	232, 1	67	483, 9	139
69	0	144,31	42	233, 8	68	485,28	141
	10	145,13	42	234,16	68	487,49	142
	20	145,55	43	235,24	68	490,11	143
	30	146,38	43	236,32	69	492,34	144
	40	147,21	43	237,41	70	494,58	145
	50	148, 4	43	238,51	70	497,23	146
70	0	148,47	44	240, 1	71	499,49	148

Latit.		Firſt		Second		Third		Fourth	
gr.	*m*	*Longi*	*dif*	*Longi*	*dif*	*Longi*	*dif*	*Lon.*	*dif*
70	10	19,53	6	41,23	12	66,46	19	99,54	30
	20	19,59	5	41,35	13	67, 5	20	100,24	30
	30	20, 4	6	41,48	12	67,25	20	100,54	30
	40	20,10	6	42, 0	13	67,45	20	101,24	30
	50	20,16	6	42,13	12	68, 5	21	101,54	31
71	0	20,22	6	42,25	13	68,26	20	102,25	31
	10	20,28	6	42,38	13	68,46	21	102,56	31
	20	20,34	7	42,51	13	69, 7	21	103,27	31
	30	20,41	6	43, 4	13	69,28	21	103,58	32
	40	20,47	6	43,17	13	69,49	21	104,30	32
	50	20,53	7	43,30	14	70,10	22	105, 2	32
72	0	21, 0	6	43,44	13	70,32	22	105,34	32
	10	21, 6	6	43,57	13	70,54	22	106, 6	33
	20	21,12	7	44,10	14	71,16	22	106,39	33
	30	21,19	7	44,24	14	71,38	22	107,12	34
	40	21,26	7	44,38	14	72, 0	23	107,46	34
	50	21,33	7	44,52	14	72,23	23	108,20	34
73	0	21,40	6	45, 6	14	72,46	23	108,54	34
	10	21,46	7	45,20	14	73, 9	23	109,28	35
	20	21,53	7	45,34	15	73,32	23	110, 3	35
	30	22, 0	7	45,49	15	73,55	24	110,38	35
	40	22, 7	7	46, 4	15	74,19	24	111,13	36
	50	22,14	7	46,19	15	74,43	24	111,49	36
74	0	22,21	8	46,34	15	75, 7	25	112,25	36
	10	22,29	7	46,49	15	75,32	24	113, 1	37
	20	22,36	8	47, 4	16	75,56	25	113,38	38
	30	22,44	7	47,20	15	76,21	25	114,15	38
	40	22,51	8	47,35	16	76,46	25	114,53	38
	50	22,59	7	47,51	16	77,11	26	115,31	38
75	0	23, 6	8	48, 7	16	77,37	26	116, 9	38

Latit.		Fift.		Sixt		Seventh.	
gr.	*m*	*Longit.*	*dif.*	*Longit.*	*dif.*	*Longit.*	*diff.*
70	10	149,31	44	241,12	72	502,17	149
	20	150,15	45	242,24	72	504,46	150
	30	151, 0	45	243,36	73	507,16	151
	40	151,45	46	244,49	73	509,47	152
	50	152,31	46	246, 2	74	512,19	154
71	0	153,17	46	247,16	74	514,53	155
	10	154, 3	46	248,30	75	517,28	156
	20	154,49	47	249,45	76	520, 4	158
	30	155,36	48	251, 1	76	522,42	159
	40	156,24	48	252,17	77	525,21	161
	50	157,12	48	253,34	78	528, 2	162
72	0	158, 0	49	254,52	78	530,44	163
	10	158,49	49	256,10	79	533,27	165
	20	159,38	49	257,29	80	536,12	166
	30	160,27	50	258,49	81	538,58	168
	40	161,17	50	260,10	82	541,46	170
	50	162, 7	51	261,32	82	544,36	171
73	0	162,58	51	262,54	83	547,27	173
	10	163,49	52	264,17	84	550,20	174
	20	164,41	53	265,41	84	553,14	176
	30	165,34	53	267, 5	85	556,10	178
	40	166,27	54	268,30	86	559, 8	180
	50	167,21	54	269,56	87	562, 8	181
4	0	168,15	55	271,23	88	565, 9	183
	10	169,10	55	272,51	89	568,12	185
	20	169,55	55	274,20	90	571,17	187
	30	171, 0	56	275,50	91	574,24	189
	40	171,56	57	277,21	92	577,33	191
	50	172,53	57	278,53	93	580,44	194
5	0	173,50	58	280,26	94	583,58	196

Suns declination 1633.1637.1641.1645.

Dayes.	Janua. South.	Februa South.	March South.	April. North·	May. North	June North.
1	21,45	13,50	3,29	8.32	18, 3	23.11
2	21,35	13,30	3, 5	8.54	18,17	23.15
3	21,25	13, 9	2,41	9.15	18,32	23.18
4	21,14	12,49	2,17	9.37	18,47	23.20
5	21, 3	12,28	1,54	9.58	19, 1	23.24
6	20,52	12, 8	1,30	10,20	19,15	23,26
7	20,40	11,47	1, 6	10.41	19,29	23,28
8	20,27	11,26	0,43	11, 2	19,42	23,29
9	20,14	11, 4	0,19	11,23	19,55	23.30
10	20, 1	10,42	N 0, 4	11.43	20, 7	23.31
11	19,48	10,20	0,28	12, 3	20,20	23.31
12	19,34	9,58	0,52	12,24	20,31	23.31
13	19,20	9,36	1,16	12.44	20,43	23.31
14	19, 5	9,14	1,39	13. 3	20,54	23.30
15	18,50	8,52	2, 3	13,23	21. 5	23.28
16	18,35	8,29	2,26	13.42	21,15	23,26
17	18,20	8, 7	2,50	14. 1	21,26	23,23
18	18, 4	7.44	3,13	14.20	21,35	23.20
19	17.48	7,21	3.37	14.39	21,45	23.17
20	17.31	6,58	4, 0	14.57	21,54	23.13
21	17,14	6,35	4,23	15.15	22, 2	23. 9
22	16,57	6,12	4.46	15.33	22,10	23. 5
23	16,39	5.48	5, 9	15.51	22,18	23. 1
24	16,21	5,26	5.32	16, 8	22,25	22.55
25	16, 3	5, 2	5.55	16.25	22,33	22.50
26	15.45	4.39	6,18	16.42	22,39	22.44
27	15,27	4,16	6,41	16.59	22,46	22.38
28	15, 8	3,52	7, 3	17.15	22,52	22,31
29	14.49		7,25	17.31	22,57	22.24
30	14,29		7.48	17.47	23, 2	22.16
31	14,10		8,10		23, 7	

Suns declination 1633.1637.1641.1645.

Dayes	Iuly	Auguſt.	Septem.	Octob.	Novem	Decem
	North.	North.	North.	South.	South.	South
1	22, 7	15,14	4,26	7,12	17,37	23, 7
2	21,59	14,56	4, 3	7,34	17,54	23,12
3	21,51	14,37	3,40	7,57	18,10	23,16
4	21,42	14,19	3,17	8,20	18,26	23,20
5	21,32	14, 0	2,54	8,42	18,41	23,23
6	21,22	13,41	2,31	9, 4	18,56	23,25
7	21,12	13,22	2, 8	9,26	19,11	23,27
8	21, 2	13, 3	1,45	9,48	19,25	23,29
9	20,51	12,43	1,21	10,10	19,39	23,30
10	20,40	12,23	0,58	10,32	19,53	23,31
11	20,28	12, 3	0,35	10,53	20, 6	23,31
12	20,16	11,43	0,11	11,15	20,19	23,31
13	20, 4	11,23	S 0,12	11,36	20,32	23,30
14	19,52	11, 2	0,36	11,57	20,44	23,29
15	19,39	10,41	1, 0	12,18	20,56	23,27
16	19,26	10,20	1,24	12,39	21, 7	23,25
17	19,12	9,59	1,47	12,59	21,18	23,22
18	18,58	9.38	2,11	13,19	21,29	23,19
19	18,44	9,17	2,34	13,39	21,39	23,16
20	18,29	8,55	2,58	13,59	21,49	23,12
21	18,14	8,33	3,21	14,19	21,58	23, 7
22	17,59	8,12	3,44	14,38	22, 7	23, 2
23	17,44	7,50	4, 7	14,57	22,15	22,57
24	17,29	7,28	4,31	15,16	22,23	22,51
25	17,13	7, 5	4,54	15,35	22,31	22,45
26	16,57	6,43	5,17	15,53	22,38	22,38
27	16,40	6,21	5,41	16,11	22,45	22,31
28	16,23	5,58	6, 3	16,29	22,51	22,23
29	16, 6	5,35	6,26	16,46	22,57	22,15
30	15,49	5,13	6,49	17, 4	23, 2	22, 7
31	15,32	4,50		17,21		21,58

Suns declination 1634. 1638.1642.1646.

Dayes.	Janua.	Februa.	Marc	April.	May.	June.
	South.	South.	South	Nort.	North.	North.
1	21,47	13,54	3,34	8.27	17,59	23,10
2	21,37	13,34	3,11	8.48	18,14	23,14
3	21,27	13,14	2,47	9.10	18,29	23,18
4	21,17	12,54	2,23	9.32	18,43	23,21
5	21, 6	12,34	2, 0	9.53	18,58	23,24
6	20,54	12,13	1,36	10,14	19,12	23,26
7	20,42	11,52	1,12	10,36	19,25	23,28
8	20,30	11,31	0,49	10,57	19,38	23,29
9	20,17	11, 9	0,25	11,18	19,51	23,30
10	20, 4	10,48	0, 1	11,38	20, 4	23,31
11	19,51	10,26	No,22	11,58	20,17	23,31
12	19,37	10, 4	0,46	12,18	20,29	23,31
13	19,23	9,42	1,10	12,38	20,40	23,31
14	19, 9	9,19	1,34	12,58	20,51	23,30
15	18,54	8,57	1,57	13,18	21, 2	23,28
16	18,39	8,35	2,20	13,37	21,13	23,26
17	18,23	8,12	2,44	13,56	21,23	23,24
18	18, 7	7,50	3, 7	14,15	21,33	23,21
19	17,51	7,27	3,31	14,34	21,42	23,18
20	17,35	7, 4	3,54	14,53	21,51	23,15
21	17,18	6,41	4,17	15,11	22, 0	23,11
22	17, 1	6,18	4,41	15,29	22, 8	23, 7
23	16,43	5,55	5, 3	15,47	22,16	23, 2
24	16,26	5,32	5,26	16, 4	22,24	22,57
25	16, 8	5, 8	5,49	16,21	22,31	22,51
26	15,49	4,45	6,12	16,38	22,38	22,45
27	15,31	4,21	6,35	16,55	22,44	22,39
28	15,12	3,58	6,58	17,11	22,50	22,33
29	14,53		7,20	17,27	22,56	22,26
30	14,34		7,42	17,43	23, 1	22,18
31	14,14		8, 4		23, 6	

Suns declination 1634.1638.1642.1646.

Dayes.	July	Auguſt.	Septem.	Octob.	Novem	Decem
	North.	North.	North.	South.	South.	South
1	22, 9	15,18	4,32	7, 7	17,33	23, 6
2	22, 1	15, 0	4, 9	7,29	17,50	23,11
3	21,53	14,42	3,46	7,52	18, 6	23,15
4	21,44	14,24	3,23	8,14	18,22	23,19
5	21,35	14, 5	2,59	8,37	18,37	23,22
6	21,25	13,46	2,36	8,59	18,52	23,25
7	21,15	13,26	2,13	9,21	19, 7	23,27
8	21, 4	13, 7	1,50	9,43	19,22	23,29
9	20,54	12,48	1,26	10, 5	19,36	23,30
10	20,43	12,28	1, 3	10,27	19,50	23,31
11	20,31	12, 8	0,39	10,48	20, 3	23,31
12	20,19	11,48	0,16	11, 9	20,16	23,31
13	20, 7	11,28	S 0, 6	11,31	20,29	23,31
14	19,55	11, 7	0,31	11,52	20,41	23,30
15	19,42	10,47	0,54	12,13	20,53	23,28
16	19,29	10,26	1,18	12,33	21, 5	23,26
17	19,15	10, 5	1,41	12,53	21,16	23,23
18	19, 2	9.43	2, 5	13,13	21,27	23,20
19	18,48	9,22	2,28	13,34	21,37	23,17
20	18,33	9, 1	2,52	13,54	21,47	23,13
21	18,18	8,39	3,15	14,14	21,56	23, 8
22	18, 4	8,17	3,39	14,33	22, 5	23, 3
23	17,48	7,55	4, 2	14,52	22,14	22,58
24	17,33	7,33	4,25	15,11	22,22	22,53
25	17,17	7,11	4,48	15,30	22,30	22,47
26	17, 1	6,49	5,12	15,48	22,37	22,40
27	16,44	6,26	5,35	16, 6	22,44	22,33
28	16,27	6, 4	5,58	16,24	22,50	22,25
29	16,10	5,41	6,21	16,42	22,56	22,17
30	15,53	5,18	6,44	16,59	23, 1	22, 9
31	15,36	4,56		17,16		22, 0

Suns declination 1635.1639.1643.1647.

Dayes	Janua.	Februa	March	April.	May.	June
	South.	South.	South.	North.	North.	North
1	21,50	14, 0	3,40	8,21	17.55	23. 9
2	21,40	13,40	3,17	8,43	18.10	23.13
3	21,30	13,20	2,53	9, 5	18.25	23.17
4	21,19	12,59	2,29	9,26	18.40	23.20
5	21, 8	12,39	2, 6	9,48	18.54	23.23
6	20,57	12,18	1,42	10, 9	19. 8	23.25
7	20,45	11,57	1,18	10,30	19.22	23.27
8	20,33	11,36	0,54	10,51	19.35	23.29
9	20,21	11,14	0,31	11,12	19.48	23.30
10	20, 8	10,53	0, 8	11,33	20. 1	23.31
11	19,55	10,31	N 0,15	11,53	20.14	23.31
12	19,41	10, 9	0,39	12,14	20.26	23.31
13	19,27	9,47	1, 4	12,34	20.37	23.31
14	19,13	9,25	1,27	12,53	20.49	23.30
15	18,58	9, 3	1,51	13,12	21. 0	23.29
16	18,43	8,40	2,14	13,32	21.10	23.27
17	18,27	8,18	2,38	13,52	21,20	23.24
18	18,11	7,55	3, 2	14,11	21.30	23.21
19	17,55	7,33	3,25	14,29	21.40	23.18
20	17,39	7,10	3,48	14,48	21.49	23.15
21	17,22	6,47	4,12	15, 6	21.58	23.12
22	17, 5	6,24	4,35	15,24	22. 6	23. 8
23	16.48	6, 1	4,58	15,42	22,14	23. 3
24	16,30	5,37	5,21	16, 0	22,22	22,58
25	16,12	5,14	5,44	16,17	22,29	22.53
26	15,54	4,51	6, 7	16,34	22.36	22 47
27	15,36	4,27	6,29	16,51	22.43	22,41
28	15,17	4, 3	6,52	17, 7	22.49	22.34
29	14,58		7,14	17,23	22.54	22,27
30	14,39		7,37	17,39	23. 0	22,20
31	14,19		8,59		23. 5	

Suns declination 1635.1639.1643.1647.

Dayes.	Iuly.	Auguſt.	Septem.	Octob.	Novem	Decem
	North.	North.	North.	South.	South.	South.
1	22.11	15.22	4,37	7, 1	17,29	23, 5
2	22. 3	15. 4	4,14	7,23	17,46	23,10
3	21.55	14.46	3,51	7,46	18, 2	23,14
4	21.46	14.28	3,28	8, 9	18,18	23,18
5	21.37	14. 9	3, 5	8,31	18,34	23,21
6	21.27	13.50	2,42	8,53	18,49	23,24
7	21.17	13.31	2,19	9,15	19, 4	23,26
8	21. 7	13.11	1,55	9,37	19,18	23,28
9	20.56	12.52	1,32	9,59	19,32	23,30
10	20.45	12.33	1, 8	10,21	19,46	23,31
11	20.34	12.13	0,45	10,43	20, 0	23,31
12	20.22	11.53	0,22	11, 3	20,13	23,31
13	20.10	11.33	S 0, 1	11,25	20,26	23,31
14	19.58	11.12	0,24	11,46	20,38	23,30
15	19.45	10.50	0,48	12, 7	20,50	23,28
16	19.32	10.30	1,12	12,28	21, 2	23,26
17	19.18	10. 9	1,36	12,49	21,13	23,23
18	19. 5	9.48	1,59	13, 9	21,24	23,20
19	18.51	9.26	2,23	13,29	21,34	23,17
20	18.36	9. 5	2,46	13,49	21,44	23,13
21	18.22	8.43	3, 9	14, 8	21,54	23, 9
22	18. 7	8.22	3,33	14,28	22, 3	23, 5
23	17.52	8. 0	3,56	14,48	22,12	23, 0
24	17.36	7.37	4,19	15, 7	22,20	22,54
25	17.20	7.15	4,43	15,25	22,28	22,48
26	17. 4	6.53	5, 6	15,44	22,36	22,41
27	16.48	6.31	5,29	16, 2	22,42	22,34
28	16.31	6. 8	5,52	16,20	22,48	22,27
29	16.14	5.46	6,15	16,38	22,54	22,19
30	15.57	5.23	6,38	16,55	23, 0	22,11
31	15.40	5. 0		17,12		22, 2

Suns declination 1636.1640.1644.1648.

Dayes M.	Janua.	Febrna	March	April.	May.	June
	South.	South.	South.	North.	North.	North
1	21,52	14, 4	3,22	8,38	18. 6	23,12
2	21,43	13,44	2,59	8,59	18.21	23.16
3	21,33	13,24	2,35	9,21	18.36	23.19
4	21,22	13, 4	2,11	9,43	18.51	23.22
5	21,11	12,44	1,48	10, 4	19. 5	23.25
6	21, 0	12,23	1,24	10,25	19.19	23,27
7	20,48	12, 2	1, 0	10,46	19.32	23,29
8	20,36	11,41	0,37	11, 7	19.45	23.30
9	20,24	11,20	0,14	11,28	19.58	23,31
10	20,11	10,58	N 0,10	11,48	20.11	23.31
11	19,58	10,36	0,33	12, 9	20,23	23,31
12	19,44	10,14	0,57	12,29	20,35	23.31
13	19,30	9,53	1,22	12,49	20,46	23,30
14	19,16	9,31	1,45	13, 8	20,57	23.29
15	19, 1	9, 8	1, 9	13,28	21. 8	23,27
16	18,46	8,46	2,32	13,47	21,18	23.25
17	18,31	8,23	2,56	14, 6	21,28	23.23
18	18,15	8, 1	3,19	14,25	21.38	23.19
19	17,59	7,38	3,43	14,43	21,47	23.16
20	17,43	7,15	4, 6	15, 2	21,56	23,13
21	17,26	6,52	4,29	15,20	22. 4	23, 9
22	17, 9	6,29	4,52	15,38	22.13	23. 4
23	16,52	6, 6	5,15	15,55	22,21	22,59
24	16,35	5,43	5,38	16,13	22,28	22,54
25	16,17	5,20	6, 1	16,30	22,35	22.48
26	15,58	4,56	6,24	16,47	22.41	22.42
27	15,40	4,33	6,46	17, 3	22.47	22,36
28	15,22	4,10	7, 9	17,19	22.53	22.29
29	15, 3	3,46	7,31	17,35	22.59	22,22
30	14,43		7,53	17,51	23. 4	22,14
31	14,24		8,16		23. 8	

Suns declination 1636.1640.1644.1648.

dayes.	Iuly. North.	August. North.	Septem. North.	Octob. South.	Novem South.	Decem South.
1	22. 5	15. 8	4,20	7,18	17,42	23, 9
2	21.57	14.50	3,57	7,41	17,58	23,13
3	21.48	14.31	3,34	8, 3	18,14	23,17
4	21.39	14.13	3,11	8,25	18,30	23,20
5	21,29	13.54	2,48	8,48	18,45	23,23
6	21.19	13.35	2,25	9,10	19, 0	23,26
7	21. 9	13.16	2, 1	9,32	19,15	23,28
8	20.58	12.56	1,38	9,54	19,29	23,30
9	20.47	12.37	1,14	10,16	19,43	23,31
10	20.36	12,17	0,51	10,37	19,57	23,31
11	20,24	11,57	0,28	10,59	20,10	23,31
12	20.12	11.37	0, 5	11,20	20,23	23,31
13	20. 0	11,16	S 0,18	11,41	20,35	23,30
14	19.47	10,55	0,42	12, 2	20,47	23,29
15	19.34	10.35	1, 6	12,23	20,59	23,27
16	19.21	10.14	1,30	12,44	21,10	23,24
17	19. 7	9.53	1,53	13, 4	21,20	23,21
18	18.53	9.31	2,17	13,24	21,31	23,18
19	18.39	9.10	2,40	13,44	21,41	23,14
20	18.25	8.48	3, 4	14, 4	21,51	23,10
21	18,10	8.27	3,27	14,24	22, 0	23, 6
22	17.54	8. 5	3,50	14,43	22, 9	23, 1
23	17.39	7.43	4,13	15, 2	22,17	22,55
24	17.23	7.21	4,37	15,21	22,25	22,49
25	17. 7	6.59	5, 0	15,39	22,33	22,43
26	16.51	6.36	5,23	15,57	22,40	22,36
27	16.35	6.14	5,46	16,16	22,47	22,29
28	16.18	5.51	6, 9	16,33	22,53	22,21
29	16. 1	5.29	6,32	16,51	22,59	22,13
30	15.43	5. 6	6,55	17, 8	23, 4	22, 4
31	15.25	4.43		17,25		21,55

Suns right Aſcenſion in Houres and minutes.

Dayes.	Janua.	Februa.	Marc	April.	May.	June.
	H.M	H.M	H.M	H.M	H.M.	H.M.
1	19,32	21,41	23,27	1,20	3,13	5,18
2	19,37	21,45	23,31	1,23	3,17	5,22
3	19,41	21,49	23,34	1,27	3,21	5,26
4	19,45	21,53	23,38	1,31	3,24	5,30
5	19,50	21,57	23,42	1,34	3,28	5,34
6	19,54	22, 0	23,45	1,38	3,32	5,38
7	19,58	22, 4	23,49	1,42	3,36	5,43
8	20, 3	22, 8	23,52	1,45	3,40	5,47
9	20, 7	22,12	23,56	1,49	3,44	5,51
10	20,11	22,16	0, 0	1,53	3,48	5,55
11	20,15	22,20	0, 3	1,57	3,52	5,59
12	20,20	22,24	0, 7	2, 0	3,56	6, 3
13	20,24	22,27	0,11	2, 4	4, 0	6, 8
14	20,28	22,31	0,14	2, 8	4, 4	6,12
15	20,32	22,35	0,18	2,11	4, 8	6,16
16	20,36	22,39	0,21	2,15	4,12	6,20
17	20,40	22,42	0,25	2,19	4,16	6,24
18	20,45	22,46	0,29	2,23	4,20	6,28
19	20,49	22,50	0,32	2,27	4,24	6,32
20	20,53	22,54	0,36	2,30	4,28	6,37
21	20,57	22,57	0,40	2,34	4,33	6,41
22	21, 1	23, 1	0,43	2,38	4,37	6,45
23	21, 5	23, 5	0,47	2,42	4,41	6,49
24	21, 9	23, 8	0,50	2,46	4,45	6,53
25	21,13	23,12	0,54	2,49	4,49	6,57
26	21,17	23,16	0,58	2,53	4,53	7, 1
27	21,21	23,20	1, 1	2,57	4,57	7, 6
28	21,25	23,23	1, 5	3, 1	5, 1	7,10
29	21,29		1, 9	3, 5	5, 5	7,14
30	21,33		1,12	3, 9	5,10	7,18
31	21,37		1,16		5,14	

Suns right Aſcenſion in Houres and minutes.

Daies	Iuly.	Auguſt.	Septem	Octob	Nouem.	Decem.
	H.M	H.M.	H.M.	H.M	H.M.	H.M.
1	7,22	9,24	11,18	13, 6	15, 6	17,14
2	7,26	9,28	11,21	13,10	15,10	17,19
3	7,30	9,31	11,25	13,14	15,14	17,23
4	7,34	9,35	11,29	13,17	15,18	17,27
5	7,38	9,39	11,32	13,21	15,23	17,32
6	7,42	9,43	11,36	13,25	15,27	17,36
7	7,46	9,46	11,39	13,29	15,31	17,41
8	7,50	9,50	11,43	13,32	15,35	17,45
9	7,54	9,54	11,47	13,36	15,39	17,50
10	7,58	9,58	11,50	13,40	15,43	17,54
11	8, 2	10, 1	11,54	13,44	15,48	17,59
12	8, 6	10, 5	11,57	13,48	15,52	18, 3
13	8,10	10, 9	12, 1	13,51	15,56	18, 7
14	8,14	10,12	12, 4	13,55	16, 0	18,12
15	8,18	10,16	12, 8	13,59	16, 5	18,16
16	8,22	10,20	12,12	14, 3	16, 9	18,21
17	8,26	10,23	12,15	14, 7	16,13	18,25
18	8,30	10,27	12,19	14,11	16,17	18,30
19	8,34	10,31	12,23	14,14	16,22	18,34
20	8,38	10,34	12,26	14,18	16,26	18,39
21	8,42	10,38	12,30	14,22	16,30	18,43
22	8,46	10,42	12,33	14,26	16,35	18,48
23	8,49	10,45	12,37	14,30	16,39	18,52
24	8,53	10,49	12,41	14,34	16,43	18,56
25	8,57	10,53	12,44	14,38	16,48	19, 1
26	9, 1	10,56	12,48	14,42	16,52	19, 5
27	9, 5	11, 0	12,52	14,46	16,56	19,10
28	9, 9	11, 3	12,55	14,50	17, 1	19,14
29	9,13	11, 7	12,59	14,54	17, 5	19,18
30	9,16	11,11	13, 3	14,58	17,10	19,23
31	9,20	11,14		15, 2		19,27

The names of the Starres.	Decli- nation *Deg.m*	Diſt. from the Pole. *De.m*	Right Aſcen *H.m.*
In the breaſt of Caſſiopeia	54,31 N	35,29	0,2
The Poole-Sterre	87,19 N	2,41	0,2
The girdle of Andromeda	33,42 N	56,18	0,4
At the knees of Caſſiopeia	58,17 N	31,43	1,
Whales bellie	12, 7 S	77,53	1,3
The Southerly foote of Andromeda	40,32 N	49,28	1,4
Rammes head	21,42 N	68,18	1,4
The head of Meduſa	39,29 N	50,31	2,4
Perſeus rightſide	48,28 N	41,32	2,5
Bulles eije	15,42 N	74,18	4,1
The Goate	45,33 N	44,27	4,5
Orions left foote	8,40 S	81,20	4,5
Orions left ſhoulder	5,57 N	84, 3	5,
Firſt in Orions gildle	0,37 S	89,23	5,1
Second in Orions girdle	1,28 S	88,32	5,1
Third in Orions girdle	2,11 S	87,49	5,2
The Wagoners right ſhoulder	44,51 N	45, 9	5,3
Orions right ſhoulder	7,17 N	82,43	5,3
The bright foot of the Twinnes	16,40 N	73,20	6,1
The great dogge	16,12 S	73,48	6,29
The upper head of the Twinnes	32,38 N	57,22	7,1
The leſſe dogge	6, 9 N	83,51	7,20
The lower head of the Twinnes	28,52 N	61, 8	7,2
The brighteſt in Hydra.	7, 4 S	82,56	9, 9

The names of the Srarres.	Declination *Deg.m*	Diſt. from the Pole. *De.m*	Right Aſcen *H.M*
Lions heart	13,45 N	76,15	9,49
Lions backe	22,33 N	67,27	10,54
Lions taile	16,39 N	73,21	11,30
The great Beares thigh	55,47 N	34,13	11,34
The great Beares rump	59, 5 N	30,55	11,57
The firſt in the great Beares taile next her rump.	58, 0 N	32, 0	12,37
Virgius ſpike	9,10 S	80,50	13, 6
The middle moſt in the great Beares taile	56,54 N	33, 6	13, 9
In the end of her taile	51,13 N	38,47	13,33
Betweene Bootes thighs	21,10 N	68,50	13,59
The South Balance	14,26 S	75,34	14,31
The North Balance	7,57 S	82, 3	14,57
Scorpions heart	25,30 S	64,30	16, 7
Hercules head	14,53 N	75, 7	16,58
Serpentaries head	12,54 N	77, 6	17,18
The Dragons head	51,37 N	38,23	17,48
The brighteſt in the harpe	38,29 N	51,31	18,24
Eagles heart	7,58 N	82, 2	19,33
Swans taile	43,59 N	46, 1	20,29
Pegaſus mouth	8,12 N	81,48	21,26
Pegaſus ſhoulder	13,14 N	76,46	22,46
The head of Andromeda.	27, 4 N	62,56	23,49

QVEST. I. By the Rumb and diſtance of tw
places, to finde the difference of Latitude.

As the Radius is,
To the Sine of the Complement of the Rumb fr
the Meridian;
So is the diſtance,
To the difference of Latitude.

EXAMPLE. If a ſhippe ſayle Weſt Nor
Weſt (that is upon the ſixt rumb from the Merid
an) the diſtance of 90 leagues: What ſhall be th
difference of Latitude?

First I ſee in the Table following that the ang
which that rumb maket'h with the Meridian, is 6
degr: 30 min: the complement whereof is 22 deg
30 min: whoſe Sine is 38268. Therefore

As 100000 *is to* 38268;
So is 90 *to* 34.4 *leagues the difference of Latitud*
which being multiplied by 3 *the product gen*
103 *minutes, that is* 1 *degr* 43 *min.*

This queſtion maij alſo be reſolued by the fir
Table of rumbs, where I finde in the Colomne o
the ſixt rumb, that 80 leagues make 1 degr: 32 m
and 10 leagues make 11 min: for the differenc
of Latitude, which is together 1 degr: 43 min
as before.

Table for the Angles which every Rumb maketh with the Meridian.

NORTH.		D:m	SOVTH.		
		2,49			
		5,38			
		8,26			
NbE	NbW	11,15	SbW	SbE	1
		14, 4			
		16,53			
		19,41			
NNE	NNW	22,30	SSW	SSE	2
		25,19			
		28, 8			
		30,56			
NEbN	NWbN	33,45	SWbS	SEbS	3
		36,34			
		39,23			
		42,11			
NE	NW	45, 0	SW	SE	4
		47,49			
		50,37			
		53,26			
NEbE	NWbW	56,15	SWbW	SEbE	5
		59, 4			
		61,52			
		64,41			
ENE	WNW	67,30	WSW	ESE	6
		70;19			
		73, 7			
		75,56			
EbN	WbN	78,45	WbS	EbS	7
		81,34			
		84,22			
		87,11			
Eaſt	Weſt	90, 0	Weſt	Eaſt	8

QVEST.II. By the Rumb and Latitude of tw places,to finde the difference of Longitude.

As the Radius, is
To the Tangent of the Rumb from the Meridian;
So is the proper difference of Latitude,
To the difference of Longitude.

EXAMPLE. If a ſhippe ſayle Weſt North Weſt (that is upon the ſixt rumb from the Meridian) as farre that from the Latitude of 51 degr: 32 min: It cometh to the Latitude of 49 degr: 49 min: What difference of Longitude hath ſuch a courſe made?

Firſt I ſeeke in the Table of Meridionall parts, what degrees doe there anſwere to each Latitude, and to 51 degr: 32 min. I finde degr: 60 330, and to 49 degr: 49 min: I finde degr: 57 620. This being ſubtracted from 60 330 the remainder 2 710 degr: is the proper difference of Latitude; The Tangent of the Rumb 67 degr: 30 min: is 241421 Thereforde

As 100000 is to 241421,
So is 2 71 to 6 54 degr: the difference of Longitudes.

This maij alſo be done by the ſecond Table of rumbs, if you looke for the Longitude anſwering there to each Latitude, and you ſhalle finde that in Colomne of the ſixt rumb to 51 degr: 32 min: doe anſwere 145 degr: 39 min: and to 49 degr: 49 min: 139 degr: 6 min: This being ſubtracted from 145 degr: 39 min: the difference is 6 degr: 33 min: which was ſought for.